EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 4-27

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-15-022	09/01/2015 To 06/30/2020 Base Option Period Number 4	Water Finance Center

Contractor: Cadmus Group LLC, The

Specify Section and paragraph of Contract SOW: 3.1.6

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/01/2019 To 06/30/2020

Comments:

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

SFO (*Max 2*): ☐

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee	LOE
Contract Period: 09/01/2015 To 06/30/2020		0
This Action:	2,265	
Total:	2,265	

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Tara Johnson	(Signature)	(Date)	Branch/Mail Code: Phone Number: 202-564-6186 FAX Number:
Project Officer Name: Nancy Parrotta	(Signature)	(Date)	Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:
Other Agency Official Name:	(Signature)	(Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Camille W. Davis	(Signature)	(Date)	Branch/Mail Code: Phone Number: 513-487-2095 FAX Number: 513-487-2115

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 4-27

I. ADMINISTRATIVE:

A. Title: Water Finance Center – Water Infrastructure Finance Support

B. Work Assignment Manager:
Tara M. Johnson
Office of Wastewater Management (OWM)
1200 Pennsylvania Avenue, NW (MC: 4204M)
Washington, DC 20460
202-564-6186
johnson.tara@epa.gov

Alternate Work Assignment Manager:
Sandi Williams
Office of Wastewater Management
1200 Pennsylvania Ave., NW
Mail Code 4201T
Washington, DC 20460
(202) 564-4999
williams.sandra@epa.gov

PWS Section: 3.1.6
LOE: 2265

C. Quality Assurance:
Tasks 1 and 2 in this work assignment require the use of primary and/or secondary data. Consistent with the Agency's quality assurance (QA) requirements, the contractor must supplement the Contract-Level Quality Assurance Project Plan (QAPP), which has been provided by the contractor, to assure the quality of the data used under tasks 1, 2, and 4 of this work assignment. Work on these tasks cannot proceed until the contractor receives notification of the SQAPP approval from the PO via e-mail. The project specific quality assurance requirements must be addressed in the work plan and monthly progress reports as specified under Task 0, below.

D. Background:
EPA's Water Infrastructure and Resiliency Finance Center (Water Finance Center) serves as a financing information resource for communities, municipal utilities, and private entities as they seek to address their water infrastructure needs and invest in sustainable long-term solutions.

Innovation in financing and increased resiliency are key components to meeting water infrastructure needs. Through information sharing, partnerships and community engagement, the Center plays an important role in elevating the critical importance of financing water infrastructure. The Center is working to:

- *Promote innovative financing approaches.* The Center encourages effective use of federal, state and local funds and works with the private sector, where appropriate, to build partnerships to increase water infrastructure investment.
- *Support and expand capacity building efforts through collaborative technical assistance.* The Center is working with states, communities, universities and non-profits to help utilities explore financing options for their local needs. The Center

provides information for developing sustainable funding sources for water efficiency, energy efficiency, water reuse, stormwater, and green infrastructure.

II. OBJECTIVE:

The contractor shall provide a range of technical and logistical services to EPA in support of the Center, including:

- Make updates and additions to the Water Finance Clearinghouse, review contributors' suggested additions to the Clearinghouse, and conduct Clearinghouse-related contributor outreach and training;
- Finalize a suite of water finance learning modules, including finalizing module content and creating interactive files in Adobe Captivate;
- Continue developing a set of standard operating procedures (SOPs) for the Environmental Financial Advisory Board (EFAB) and provide note-taking support at two EFAB meetings;
- Identify water sector workforce programs supported by federal agencies and,
- Complete quick turn-around tasks such as participating in conference calls, developing one-pagers/fact sheets, hosting and recording webinars, preparing stakeholder engagement materials, and creating Section 508-compliant materials.

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0: Work Plan Submission

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of: (a) proposed staff; (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor; and (c) a list of deliverables, with due dates and schedule for deliverables.

In addition, the contractor shall prepare a Supplemental Project Specific Quality Assurance Project Plan (SQAPP) appending the Contract-level Quality Assurance Project Plan (QAPP), noted above, and ensure the quality of secondary data used to complete these tasks. The work plan shall explain when the SQAPP will be submitted based on the specific data requirements of the WA. This task also includes monthly progress and financial reports which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice LOE and costs' broken out by the tasks in this WA. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. The contractor shall immediately notify the Project officer and WA manager if any changes to the collection and analysis of the data occur and prepare a new supplement to the PQAPP accordingly.

The tasks under this work assignment do not require the acquisition of "off-site" facilities for conferences and meetings as defined in the IPN 12-05 and the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

The contractor shall immediately alert the WA COR to any anticipated event under the work assignment which may result in incurring an estimated $20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WAM will then prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Deliverables: Work plan, Supplemental Project Specific Quality Assurance Project Plan, monthly progress and financial reports.

Task 1: Water Finance Clearinghouse

The Center's Water Finance Clearinghouse was publicly launched in July 2017 and serves as a web-based portal to help communities locate information and resources that assist in making informed decisions for drinking water, wastewater, and stormwater infrastructure needs. While the Clearinghouse was launched in 2017, much of the funding information is from 2016 and it is important that the information stay up-to-date so that it remains useful to the Clearinghouse's audience.

Task 1.a: Maintenance of Existing Database Entries

The contractor shall use the Clearinghouse Contributor Portal to examine all entries in the Funds database that have not been modified since July 2017. Clearinghouse entries can be sorted and filtered by the date they were last updated, so the entries to be reviewed can be easily viewed in the Contributor Portal. When reviewing each identified entry, the contractor shall review the following for accuracy and appropriateness:

- Hyperlink;
- Funding source name/acronym;
- Description;
- "How to Apply" description;
- Funding level (e.g., minimum/maximum loan amounts, average size of loans/grants, total fund amount, etc.);
- Contact information; and,
- Filters (which ensure that the entry will display correctly when users conduct searches in the Clearinghouse).

A list of best practices for applying filters will be provided by EPA. If a state website or source indicates that a particular funding program is no longer available, the contractor shall suggest its removal from the Clearinghouse via the Contributor Portal. The contractor should anticipate reviewing and, as necessary, updating approximately 550 to 600 entries in the

Funds database and assume that this review process will be conducted twice during the period of performance.

Deliverables: Review and provide updates to existing Clearinghouse content, including proposing removal of out of date content.

Task 1.b: Conduct Clearinghouse Contributor Engagement (Outreach & Training)
For the Clearinghouse to be successful in the long term, it is important that entries in the Funds database are maintained by those who manage the funding programs. The contractor shall conduct outreach to funding programs to teach funders how to become Contributors to the Clearinghouse, including how to suggest the addition, edits, and deletion of content via the Contributor Portal. The contractor shall plan and deliver outreach activities in close coordination with EPA, with the understanding that Center personnel will also be conducting outreach. For planning purposes, the contractor shall assume the delivery of four webinars during the period of performance. Webinars will be hosted via the the Agency's webinar tool and will use existing EPA PowerPoint presentations. The contractor will not be developing or updating PowerPoint presentations or other materials for the webinars. For each webinar, the contractor shall set-up a registration page using Eventbrite or a similar platform and provide registration information to EPA. The webinars will not need to be recorded or posted to EPA's website or YouTube; therefore, no Section 508 compliance work will be required.

Deliverables: Four webinars and Clearinghouse contributor technical assistance as requested via technical direction from the WACOR.

Task 1.c: Identify and Add Additional Funding Programs to the Clearinghouse
The contractor shall research and identify additional funding programs that should be added to the Clearinghouse and then add them using the Contributor Portal. The contractor should focus on the following sectors and eligible uses:

- Funding programs that homeowners and states may access for septic system repair, replacement, and/or new construction;
- Programs that support energy efficiency and energy generation at water and wastewater utilities;
- Programs that support disaster recovery and resiliency of water-related resources; and,
- Funding programs from the states.

When entering new funding programs into the Clearinghouse, the contractor shall apply all appropriate filters to each entry so that the entry will display correctly when users conduct searches in the Clearinghouse. If necessary, the contractor shall contact the funding programs to identify information necessary to complete the Clearinghouse entry. The contractor can estimate it will identify and enter approximately 50 new funding programs into the Clearinghouse during the period of performance and that representatives from approximately 25 of these programs will need to be contacted for more information. This research and entry process will be conducted two times during the period of performance.

Deliverables: Proposed new content for the Clearinghouse and associated filters.

Task 2: Water Finance Learning Modules

The contractor shall provide support for the development and finalization of the Center's water finance learning modules. The suite of learning modules will include five modules on the following topics:

- Financing Water Loss Management;
- Financing Resiliency and Disaster Recovery;
- Financing Stormwater;
- Financing Municipal-Agricultural Watershed Partnerships; and,
- Alternative Project Financing (i.e., Public Private Partnerships).

Task 2.a: Content Development

The contractor shall develop content for a subset of the learning modules. The contractor shall develop content for case studies. The topic of each case study will be identified by EPA. For each case study, the contractor shall conduct online research, develop an annotated outline following a format provided by EPA, and identify information gaps/propose areas to highlight or expand beyond what is publicly available online. In collaboration with EPA, the contractor shall identify and contact case study partners who can provide additional information on the case studies. The contractor shall then participate in up to two 1-hour conference calls per case study to gather additional information. Following the conference calls, the contractor shall incorporate the draft content from the outline, the information gathered from the case study partners, and any feedback provided by EPA on the outline into the "pre-Captivate" Word table format agreed upon by the contractor and EPA. Following final stakeholder review, the contractor shall incorporate the feedback received.

In addition to the work described above, the contractor shall complete minor edits and additions as needed based on technical direction from EPA, including converting existing module content (in Word outline or PowerPoint format) to the "pre-Captivate" Word table format. Other than the case studies described above, and with the exception of brief online searches to identify references/resources or clarify existing information, the contractor should not anticipate conducting any new research or developing any substantial new content for the learning modules during this period of performance. All online training will be Sharable Content Object Reference Model (SCORM) compliant and will be developed using software that can easily be migrated to the EPA's Learning Management System.

Deliverables: Proposed and finalized module content for five modules.

Task 2.b: Captivation

The contractor shall use Adobe Captivate software to create interactive learning module products. A master template in Captivate will be provided by EPA. The master template will include options for slide layouts, interactions, and timing/transitions. The contractor shall select components from the approved template and use them with topic appropriate background photos to present the content for each module. The contractor shall prepare interactive Captivate products for the five modules. The products will be developed directly in Captivate and not imported from PowerPoint.

For each module, the contractor shall:

- Select and integrate appropriate layouts/buttons/widgets/interactions from the approved template;
- Make tweaks to the template material to reflect module-specific needs;
- Troubleshoot software issues as they occur (including the creation of two to five customized JavaScript workarounds, with associated testing); and,
- Conduct an initial round of quality assurance review to test the links and interactions.

The contractor shall provide draft Captivate products to EPA for review (both in the native Captivate format and published to HTML5) according to a schedule determined by EPA. The contractor shall perform one round of revision per module to incorporate comments/feedback from EPA and/or its stakeholders. Because the final Captivate products will have no audio and therefore no closed captions, an alternative approach will be needed to make the content accessible to users who utilize a screen reader. The contractor may use a software workaround to generate printable versions of the slide content, which will appear similar to a "handout" version of a PowerPoint presentation. The contractor shall deliver a Section 508 compliant PDF of this output for each module after the module content has been finalized. This will meet the Center's accessibility needs and also allow EPA to provide a printer-friendly version of the learning modules to its audience.

Deliverables: Captivation of five modules.

Task 3: Environmental Financial Advisory Board (EFAB)

Task 3.a: Standard Operating Procedures (SOPs)

The contractor shall develop and finalize SOPs for the activities of the EFAB. The contractor shall anticipate developing or finalized existing SOPs to cover the following activities/processes:

- Charter Renewal;
- Agency Designated Federal Officer (DFO) Activities;
- Advisory Committee Membership;
- Agency Charges (including soliciting requests internally, creating working groups to address charges, and developing final reports with recommendations);
- Meeting Management (including Federal Register Notices, venue selection, travel management for members and experts, agenda development, and on-site meeting facilitation);
- General Reporting Requirements (including the FACA Database, GAO requests, and other office requests); and,
- Web Maintenance (including posting Federal Register Notices, agendas, membership information, and reports).

The contractor can anticipate participating in two 2-hour in-person meetings with EFAB staff during the period of performance to discuss their comments/feedback on the draft SOPs. The contractor shall compile the feedback received at these meetings, along with any supporting

documentation provided by EPA, and use that to update the draft SOPs. To support usability of the SOPs, the contractor shall develop an annual calendar, templates for name tags and table tents, and other templates/supporting documents as directed by EPA. The contractor shall work with existing EFAB templates if they are available and provide instructions for populating the templates using Microsoft Office mail merge features. The contractor shall deliver revised SOPs to EPA; these revised versions will use a layout design selected by EPA. The contractor shall anticipate that one further round of minor edits will be needed to tweak the language or the layout/appearance of the SOPs, update internal EPA hyperlinks, etc., after which the SOPs will be provided to EPA for use as living documents. If further updates are needed (e.g., after the next EFAB meeting), the contractor shall communicate with EPA regarding the time and budget implications.

Deliverables: Final SOPs.

Task 3.b: Meeting Support

The contractor shall provide note-taking and meeting summary support for two planned EFAB meetings in fall 2019 and one in spring 2020. The spring 2020 meeting will be held locally in Washington, D.C. while the fall 2019 meeting will be held outside the D.C. metro area. The contractor shall anticipate traveling to the fall 2019 meeting to provide onsite support. EPA will notify the contractor once the site has been selected. One contractor shall attend each meeting, assist with minor logistical/meeting management tasks (if directed by EPA), and prepare a detailed meeting summary. The components of each meeting requiring note-taking support will be 1.5 days in duration. The contractor shall provide a draft meeting summary to EPA following each EFAB meeting. Upon receipt of feedback from EPA, the contractor shall compile the comments/edits, incorporate the necessary changes, and provide a final, Section 508 compliant PDF version to EPA.

Deliverables: Draft and final summary meeting notes.

Task 4: Workforce Development Finance/Funding

Working with EPA, the contractor shall compile a list of federal agencies with workforce programs supporting the water sector. This should include programs run by the federal agency and programs supported through grants, cooperative agreements, funds transfer, and contracts. Each program identified should include the lead agency and any supporting agency, a brief description, available websites, any stakeholders or partners in the program, and funding levels.

Deliverables: List of water sector workforce programs supported by federal agencies and/or federal funding.

Task 5: General Program Support

The contractor shall support quick turn-around tasks such as participating in conference calls, developing short documents (fact sheets/one-pagers), hosting and recording webinars, preparing stakeholder engagement materials, and preparing Section 508 compliant

documents on various sustainable financing topics. The contractor shall anticipate completing the following activities:

- Participating in three conference calls (up to 1 hour each) with EPA Headquarters staff on various finance topics, providing summary notes and logistical planning support for these calls;
- Developing three one-page fact sheets on topics determined by EPA, including content based on direction from EPA, layout design based on examples of formats, colors, and fonts provided by EPA, one round of revisions for each fact sheet, and the final version of each fact sheet as a Section 508 compliant PDF;
- Hosting and recording two webinars (approximately 1 hour each) which may, upon direction from EPA, include the webinar recording package (an MP4 video/audio file, a timecoded transcript as an SRT file, and the required YouTube information file) following each webinar; and,
- Developing one 10-page report/brochure on a topic determined by EPA, which would include content based on direction from EPA, a layout design based on examples of formats, colors, and fonts provided by EPA, one round of revisions, and the final version of the document as a Section 508 compliant PDF.

Deliverables: Logistical support and summary notes for three conference calls. Three one-page fact sheets, finalized and compliant with Section 508. Two webinars, including timecoded transcript as a SRT file, YouTube information file, and MP4 recording. One 10-page report, finalized and compliant with Section 508.

IV. SCHEDULE OF DELIVERABLES:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan, budget, and QA supplemental	According to contract.
	Monthly progress reports	Monthly
Task 1: Water Finance Clearinghouse		
1.a	Existing content review and updates	Every 6 months
1.b	Contributor webinars	Every 3 months
	Contributor technical assistance	As identified in written technical direction
1.c	Add new content	Every 6 months
Task 2: Water Finance Learning Modules		
2.a	Module content	August – October 2019
2.b	Module Captivation	November 2019 – February 2020
Task 3: Environmental Financial Advisory Board (EFAB)		
3.a	Final SOPs	December 2019
3.b	Draft summary notes	Within 2 weeks of meeting
	Final summary notes	Within 2 weeks of receiving EPA feedback on draft

Task 4: Workforce Development Finance/Funding		
	List of water sector workforce programs	September 2019
Task 5: General Program Support		
	Quick turn-around tasks	Draft within 1 week of receiving written technical direction
	Logistical conference call support	Within 1 week of receiving written technical direction
	Conference call summary notes	Within 1 week of conference call
	Fact sheets	Draft within 2 weeks of receiving written technical direction; final within 1 week of receiving EPA feedback on draft
	Webinars including timecoded transcript as a SRT file, YouTube information file, and MP4 recording	Within 2 weeks of webinar
	Report	Draft within 3 weeks of receiving written technical direction; final within 2 weeks of receiving EPA feedback

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. TRAVEL

Travel is anticipated for this work assignment following appropriate approval by the work assignment CLCOR. Any travel will be allowable only in accordance with the limitation of FAR 31.205-43 and FAR 31.205-46, and must be approved by the appropriate EPA CLCOR prior to travel taking place. Travel is required for the onsite note-taking at one event/meeting of the

Environmental Financial Advisory Board in fall 2019, the location of which is TBD (Task 3.b). A 5170 is not required as this is a FACA.

VII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the Contracting Officer (CO), CLCOR and/or WACOR.

VIII. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

IX. Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the EPA WAM based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 4-31

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-15-022	09/01/2015 To 06/30/2020 Base Option Period Number 4	Water Quality Surveillance

Contractor	Specify Section and paragraph of Contract SOW
Cadmus Group LLC, The	2.2, 2.3, 2.4, 4.2, 5.1, 5.2, 6.1, 6.2, 6.3, 7.1

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/01/2019 To 06/30/2020

Comments:
Addt'l PWS paragraphs: 7.2, 7.3, 7.4, 7.5

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

SFO (Max 2): ☐

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee	LOE
Contract Period: 09/01/2015 To 06/30/2020		0
This Action:		0
Total:		0

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Steve Allgeier (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	513-569-7131
	FAX Number:	
Project Officer Name: Nancy Parrotta (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-564-5260
	FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	
	FAX Number:	
Contracting Official Name: Camille W. Davis Camille W Davis (Signature) 6-13-19 (Date)	Branch/Mail Code:	
	Phone Number:	513-487-2095
	FAX Number:	513-487-2115

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 04-31

I. ADMINISTRATIVE:

A. TITLE: Water Quality Surveillance and Response

B. Work Assignment Contracting Officer Representative (WACOR):

Steven Allgeier
Office of Ground Water and Drinking Water (OGWDW)
26 W. Martin Luther King Dr.
AWBERC, WSD-140
Cincinnati, OH 45268
513-569-7131
Allgeier.Steve@epa.gov

Alternate WACOR:

Matthew Umberg
Office of Ground Water and Drinking Water (OGWDW)
26 W. Martin Luther King Dr.
AWBERC, WSD-140
Cincinnati, OH 45268
513-569-7357
Umberg.Matt@epa.gov

PERIOD OF PERFORMANCE: July 1, 2019 through June 30, 20209

PWS Sections: 2.2, 2.3, 2.4, 4.2, 5.1, 5.2, 6.1, 6.2, 6.3, 7.1, 7.2, 7.3, 7.4, 7.5

LOE: The total LOE estimate for this Work Assignment is 9,749 hours. Additionally, LOE for Tasks 1 through 6 is provided in Section III.

C. Quality Assurance:

Tasks 4, 5, and 6 in this work assignment require the use of primary and/or secondary data. Collection, use, and analysis of data will be identical to the procedures described in the Contract Level Quality Assurance Project Plan (QAPP), the contractor does not need to supplement the Contract Level QAPP or to prepare a Project-Specific Quality Assurance Project Plan (PQAPP).

D. Background:

The Water Quality Surveillance and Response (SRS) program grew out of contamination warning system pilots implemented in response to Homeland Security Presidential Directive 9 (HSPD9). HSPD9 specifically required EPA to "develop robust, comprehensive, and fully coordinated surveillance and monitoring systems … for … water quality that provide early detection and awareness of disease, pest, or poisonous agents."

The SRS program is now mature, with a large body of guidance and tools that reflect the experience and lessoned learned from full-scale implementation of SRSs. EPA's efforts under this program are now focused on voluntary adoption of SRS practices by the water sector and evaluation of new methods, technologies, and practices to enhance and expand the SRS model.

The mission of the Water Quality Surveillance and Response (SRS) program is to improve capabilities within the drinking water sector (utilities, primacy agencies, technical assistance providers, and partners) to:

- Develop awareness of acute threats to water quality
- Monitor water quality (directly or indirectly) in source waters and distribution systems
- Detect undesirable water quality conditions, ranging from the mundane to the critical
- Prepare to respond to water contamination incidents

The SRS program supports the mission of the Water Security Division (WSD) as described in the Water Security Strategy framework, which relates resources, activities, outputs, audience, short- and long- term outcomes to the WSD pillars of Prevention, Detection, Response, and Recovery. Additional drivers for the SRS program include:

- *Safe Drinking Water Act*, Section 1433 – 1435 (SDWA)
- *America's Water Infrastructure Act of 2018* (AWIA)
- *National Biodefense Strategy* (NBS)
- *National Chemical Defense Strategy* (NCS)
- *Homeland Security Presidential Directive 9* (HSPD9)
- *Roadmap to a Secure and Resilient Water and Wastewater Sector (2017)*: High Priority Area, "Improve detection, response, and recovery to contamination incidents."
- *AWWA State of the Water Industry (2018)*: Table 6, Current Regulatory Concerns: "Chemical Spills" ranked 2nd for Drinking Water Utilities (and 3rd for Combined Utilities), above Lead & Copper, Pathogens, CSOs, PFAS.

II. OBJECTIVE:

The contractor shall support EPA in achieving the mission of the SRS program through activities in six (6) main areas: (1) supporting the SRS program website; (2) performing outreach and training; (3) developing guidance and tools; (4) designing and managing SRS implementation projects; (5) facilitating utility preparedness for source water contamination incidents; and (6) utilization of social media monitoring in the water sector. Detailed descriptions of the tasks necessary to achieve this objective are provided in Section III.

III. TASK DETAIL:

The contractor shall perform the following tasks:

Task 0 – Work Plan Submission

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of: (a) proposed staff; (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor; and (c) a list of deliverables, with due dates and schedule for deliverables. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the work plan shall specify that the contractor does not need to supplement the Contract Level QAPP or to prepare a Project-Specific Quality Assurance Project Plan (PQAPP). The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. This task also includes monthly progress and financial reports. Monthly financial reports must include a table with the invoice LOE and cost amount broken out by the tasks in this WA.

The tasks under this work assignment do not require the acquisition of "off-site" facilities for conferences and meetings as defined in the IPN 12-05 and the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

The contractor shall immediately alert the WA COR to any anticipated event under the work assignment which may result in incurring an estimated $20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs, AV and rental of venue costs, etc. The EPA WACOR will then prepare approval internal paperwork for the event and will advise the contractor when appropriate signatures have been obtained. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

In addition, the contractor shall submit a financial tracking spreadsheet populated with incurred and lagging costs for the current billing cycle. The EPA WACOR will provide a template for the financial tracking spreadsheet. The financial tracking spreadsheet shall be updated and submitted monthly along with the monthly progress and financial report. EPA does not anticipate the need for the contractor to travel in support of this task.

Task 1 – Website Maintenance (LOE estimate = 384 hours)

Task 1 supports the maintenance of the SRS program website and existing web-based tools. The contractor shall support this task with staff having an in-depth understanding of effective website design and existing tools on the SRS Program Website. Task 1 is divided into two (2) sub-tasks:

1. Support Maintenance of the SRS Program Website
2. Support Electronic SRS Tools

Each sub-task is described below, and additional details regarding each sub-task will be provided to the contractor through written technical direction. EPA does not anticipate the need for the contractor to travel in support of this task.

Sub-task 1.1: Support Maintenance of the SRS Program Website

Under this sub-task, the contractor shall support EPA in maintaining the SRS Program Website. Maintenance activities may include:

- Developing mock-ups and design options for new pages, or page revisions, for the WQSR Microsite
- Updating documents posted on the WQSR Microsite, which may involve updating

terminology for consistency with the *SRS Style Guide*, updating cover pages, updating links, and other minor edits as specified by the EPA WACOR

Sub-task 1.2: Support Electronic SRS Tools

Under this subtask, the contractor shall support EPA in maintaining existing electronic SRS tools, such as the *SRS Capabilities Assessment Tool*, *SRS Information Management Requirements Development Tool* (IMRT), *SRS Exercise Development Toolbox* (SRS-EDT), and *Alarm Estimation Tool*. To maintain these tools, the contractor shall:

- Provide limited technical support to users of electronic SRS tools
- Track known and reported issues
- Update the tools to correct bugs identified by EPA personnel and other users

Task 2 – Outreach and Training (LOE estimate = 796 hours)

Task 2 supports outreach and training activities under the SRS Program. Under Task 2, the contractor shall develop high quality, finished products in a variety of media, from simple factsheets and flyers to training modules and videos. Any content that is needed to create outreach and training materials will be provided to the contractor by EPA. In general, outreach and training products will be derived from existing materials (e.g., guidance documents, tools, presentations, etc.). The contractor shall also provide logistical support and facilitation of live webinars and in-person training events.

This task requires contractor staff with previous experience in developing training modules and experience or training in communication and marketing to a variety of technical and non-technical audiences. The contractor shall arrange for professional narrators to record scripts for training modules, if required. The contractor shall have access to free stock images or fee-based images, if required. The contractor shall be able to print color posters up to 36 inches wide. The contractor shall ensure that all products developed under this task are compliant with applicable EPA multi-media standards and 508 standards. The contractor shall stay apprised of the Water Security Division's (WSD's) comprehensive communication and outreach efforts to ensure that products developed under this task maintain the look and feel of other WSD products.

This task is divided into four (4) sub-tasks:

1. Produce Factsheets, Flyers, and Posters
2. Produce Training Modules
3. Provide Logistical and Facilitation Support for Workshops
4. Provide Logistical and Facilitation Support for Webinars

Each sub-task is described below, and additional details regarding each sub-task will be provided to the contractor through written technical direction from the EPA WACOR. Contractor or subject matter expert travel may be required to support this task. For estimating purposes, assume one (1) trip for four (4) travelers lasting three (3) days (two (2) nights). For estimating purposes, assume that the destination for each trip is a medium-large sized city in the Midwest.

Sub-task 2.1: Produce Factsheets, Flyers, and Posters

Under this sub-task, the contractor shall develop high-quality outreach materials, such as factsheets, flyers, and posters. Content for outreach materials shall be prepared by contractor personnel with appropriate subject matter expertise. This content will be reviewed and edited by the EPA WACOR. Once the content has been finalized and approved by the EPA WACOR, the contractor shall develop the finished product for final review and approval. The format of each product will be specified through technical direction from the EPA WACOR, but for estimating purposes, assume that up to three (3) flyers or factsheets and one (1) 36-inch poster will be developed.

Sub-task 2.2: Produce Training Modules

Under this sub-task, the contractor shall develop high-quality training modules using PowerPoint slides, or "screen-capture" video from applications or websites. Once the content has been finalized and approved by the EPA WACOR, the contractor shall develop a script and animation instructions for each slide or sequence. The script shall be recorded by a professional narrator and matched with the slide animation or screen capture video. The final product must be converted to "mp4" format, and include closed captioning files, before it can be posted to the EPA YouTube Channel. Topics for pre-recorded webinars will be specified in technical direction and may include tutorials for using SRS tools and self-guided learning on the principles of SRS design. For estimating purposes, assume up to two (2) training modules will be developed.

All online training will be SCORM compliant and will be developed using software that can easily be migrated to the EPA's Learning Management System.

Sub-task 2.3: Provide Logistical and Facilitation Support for Workshops

Under this sub-task, the contractor shall provide logistical and facilitation support for in-person workshops. The contractor shall participate in planning activities and develop workshop materials such as agendas, hand-outs, name tags, and sign-in sheets. The contractor shall perform workshop facilitation, which may include signing in participants, introducing speakers, facilitating discussion, taking notes, and managing time. The contractor may be required to coordinate workshop registration using EventBrite or other types of registration software. The contractor may be required to arrange for subject matter experts to travel to the workshop. The contractor may also be required to support development of PowerPoint presentations, in close collaboration with EPA personnel. EPA will be responsible for identifying and securing no-cost meeting space. For estimating purposes, assume one (1) in-person workshop.

Sub-task 2.4: Provide Logistical and Facilitation Support for Live Webinars

Under this sub-task, the contractor shall provide logistical and facilitation support for delivery of live webinars. The contractor shall participate in planning meetings, coordinate webinar registration, introduce speakers, facilitate Q&A time, and provide participants with documentation for contact hour credit (if requested). The contractor may also be required to support development PowerPoint presentations, in close collaboration with EPA personnel. The contractor shall also compile summary information from the webinar, such as attendee

lists, answers to polling questions, and Q&A. For estimating purposes, assume up to six (6) live webinar events.

Task 3 – Guidance and Tools (LOE estimate = 2,635 hours)

Task 3 supports the development of guidance and tools under the SRS Program. Under Task 3, the contractor shall support EPA in developing and finalizing guidance, tools, and other products that support utility implementation of surveillance and response capabilities.

This task requires support from contractor staff with experience developing high quality documents and tools and proficiency with use of off-the-shelf data analysis software (e.g., Microsoft Excel). Furthermore, this task will require occasional support from subject matter experts to provide technical advice, limited product development, and final product review.

The contractor shall ensure that all products developed under this task are consistent with standards in the *SRS Product Style Guide*, compliant with applicable EPA standards, and compliant with 508 standards.

This task is divided into two (2) sub-tasks:

1. Support Development of Guidance
2. Support Development of Tools

Each sub-task is described below, and additional details regarding each sub-task will be provided to the contractor through written technical direction from the EPA WACOR. EPA does not anticipate the need for contractor travel in support of this task.

Sub-task 3.1: Support Development of Guidance

Under this sub-task, the contractor shall support EPA in development, review, finalization, and publication of the following three (3) guidance documents:

- *Alert Investigation Procedure Guide and Template for Distribution System Intrusion Events Detected using Advanced Metering Infrastructure*
- *Guidance for Flushing Premise Plumbing Systems following a Contamination Incident.* (EPA will take the lead in gathering input from subject matter experts to inform the *Premise Plumbing Flushing* document.)
- A brief technical guide for specific SRS practices, which will be further specified through technical direction

Specific activities that the contractor shall perform to support the development of these products include:

- Assist EPA in the development of an initial draft of the product
- Revise the product based on EPA comments
- Revise the guidance product based on peer review comments
- Revise the guidance product to address comments generated during final review
- Prepare a 508 compliant, PDF version of the final product for publication and posting on the SRS Program Website

Sub-task 3.2: Support Development of Tools

Under this sub-task, the contractor shall support EPA in the development, review, and testing of simple tools that can be used to help drinking water utilities, especially small utilities, develop SRS capabilities. This sub-task will include additional development, validation, and testing of the Excel spreadsheet-based tool: the *Distribution System Contamination eValuation and* Response tool (DSCVR). It will also include development of a simple Excel-based tool to support the spatial-temporal visualization of customer water quality complaints to help utilities establish alert thresholds, investigate alerts, improve customer service, and possibly assess infrastructure degradation. Furthermore, up to two(2) additional tools may be developed. These tools will support data analysis and information management. They will be relatively simple in design and will leverage common software such as Microsoft Excel, Microsoft Access, Qlik Sense, etc. Specific activities that the contractor shall perform under this sub-task include:

- Work with EPA and potential end-users to develop requirements for the tool
- Develop a preliminary design for the tool
- Build a test version of the tool
- Utilize EPA's GeoPlatform or dashboard software (Qlik Sense) to support data analysis and visualization, if required for the tool
- Conduct internal testing and validation of the tool
- Facilitate end-user testing of the tool
- Revise the tool based on feedback from end-users
- Perform basic maintenance and updates of the tool as needed

Task 4 – Implementation Projects (LOE estimate = 1,280 hours)

Task 4 supports the implementation of projects to develop specific SRS capabilities at specific utilities that agree to partner with EPA. Under Task 4, the contractor shall support EPA by providing direct technical support to implementation of these projects. The potential scope of the projects includes online water quality monitoring for source waters, online water quality monitoring for distribution systems, advanced metering infrastructure, social media monitoring, and smart water applications. These projects should reflect advancements in the water sector and may include aspects of intelligent water systems, the internet of things, and data analytics.

The specific scope of each implementation project will be tailored to the requirements of each participating utility. EPA anticipates that no more than three (3) implementation projects will be initiated during this period of performance. Specific activities that the contractor shall perform under this task include:

- Provide technical consultation to EPA and drinking water utility staff
- Review designs, plans, and procedures
- Analyze data related to design and operation of deployed systems, such as online water quality data, customer water quality complaints, public health surveillance data, laboratory analysis results, social media, and related data needed for proper interpretation of monitoring and surveillance data
- Assist in the development of procedures
- Plan, develop, and facilitate workshops and exercises

The contractor shall also procure, install, test, and troubleshoot up to four (4) online water quality monitoring stations containing instrumentation to monitor for multiple water quality parameters. These stations may be designed for fixed locations or portable use, and the specific design of each monitoring station will be determined by the EPA WACOR once project specifications have been developed. For estimating purposes, assume that two (2) stations will be designed for fixed locations and two (2) stations will be portable. Also, for estimating purposes, assume that the parameters monitored will include chlorine residual, pH, temperature, conductivity, and UV absorbance. The EPA WACOR will establish an equipment budget for each implementation project after the requirements for that project are developed.

Contractor travel may be required to support this task. For estimating purposes, assume three (3) trips for two (2) travelers lasting three (3) days (two (2) nights). For estimating purposes, assume that the destination for each trip is a medium-large sized city in the Midwest.

Task 5 – Source Water Contamination Preparedness (LOE estimate = 3,068 hours)

Task 5 supports efforts to improve the ability of drinking water utilities to prepare for source water contamination incidents. Under Task 5, the contractor shall support EPA in demonstrating approaches for evaluating the occurrence of spills potentially contaminating source waters, conducting a source water threat inventory, and conducting a risk assessment. The contractor shall also support the development of guidance or best practices for conducting a source water threat inventory and risk assessment.

This task requires support from contractor staff with experience in analyzing a variety of disparate data sources to perform source water inventories and risk assessments. It also requires staff skilled with geo-spatial analysis and interpretation of federal and state databases.

This task is divided into four (4) sub-tasks:

1. Analysis of Spill Occurrence
2. Ohio River Source Water Inventory Demonstration Project
3. Multi-state Source Water Threat Inventory and Risk Assessment
4. Guidance and Best Practices

Each sub-task is described below, and additional details regarding each sub-task will be provided to the contractor through written technical direction. Contractor travel may be required to support this task. For estimating purposes, assume two (2) trips for two (2) travelers lasting two (2) days (one (1) night). For estimating purposes, assume that the destination for each trip is a medium-large sized city in the Midwest.

<u>Sub-task 5.1: Analysis of Spill Occurrence</u>

Under this sub-task, the contractor shall support EPA in conducting a detailed analysis of spills that have occurred since 2010 and which may have impacted sources of drinking water. This sub-task builds on work completed under EPA contract EP-C-15-012 to analyze spill reports from the National Response Center (NRC) between 2010 and 2018. EPA developed an internal database and dashboard containing the NRC spill record, which will be provided

to the contractor for the purpose of implementing this sub-task. Specific activities that the contractor shall perform under this sub-task include:

- Add the 2019 NRC spill reports to the project once the full set of 2019 NRC records is available
- Investigate other spill records and add them to the project if they are sufficiently unique
- Perform QC on the spill record to verify the details of large spills that were likely to impact a source of drinking water
- Normalize fields such as the names of water bodies and names of materials spilled
- Analyze the complete spill record to identify possible trends.

Sub-task 5.2: Ohio River Source Water Inventory Demonstration Project

Under this sub-task, the contractor shall support EPA in conducting a detailed source water threat inventory, characterization, and risk assessment for a specified segment of the Ohio River and major tributaries. The contractor shall also support EPA in the development of mitigation and response measures. This work shall utilize the WaterSuite services, building on the work completed under EPA contract EP-C-15-012. This work shall be completed in close partnership with EPA, Greater Cincinnati Water Works (OH), Northern Kentucky Water District (KY), Portsmouth (OH), Maysville (KY), Huntington (WV), Louisville (KY), the Ohio River Valley Water Sanitation Commission (ORSANCO), and other utilities along the Ohio River in the study area. Specific activities that the contractor shall perform under this sub-task include:

- Extend the source water threat inventory upstream to the water intake for the drinking water treatment plant for Huntington, WV and downstream to the water intake for the drinking water treatment plant for Louisville, KY
- Train new users on the project
- Assess data gaps in the inventory, and fill those gaps to the extent possible within the resources available to the project
- Conduct a risk assessment and prioritization of source water threats in the study area, considering the latest research in this area, such as an ongoing Water Research Foundation study (#4748), and using river spill models to calculate an acute spill risk score
- Develop a project report that documents key information about the nature and types of source water threats identified, the relative value of various data sources for performing the source water inventory, the methodology and results of the risk assessment, a summary of mitigation strategies identified, and lessons learned from the project that would be useful to the water sector

Sub-task 5.3: Multi-state Source Water Threat Inventory and Risk Assessment

Under this sub-task, the contractor shall support EPA in conducting a multi-state source water threat inventory using data that has already been captured in WaterSuite as well as new data provided by project partners to gain a better perspective of common threats to sources of drinking water. Under EPA contract EP-C-15-012 inventories for six (6) states (IA, IL, IN, OH, NJ, FL) were compiled. Under this work assignment, the inventory shall be expanded to at least three (3) additional states or source water systems (e.g., the lower Mississippi River). Specific activities that the contractor shall perform under this sub-task include:

- Identify additional states or source water systems that are good candidates to add to the

multi-state inventory

- Conduct a comprehensive inventory of source water contamination threats in these states or source water system areas
- Conduct a risk assessment and prioritization of source water threats in the complete study area, considering the latest research in this area, such as an ongoing Water Research Foundation study
- Identify contaminants that rank high in the risk assessment and contaminants that are poorly characterized
- Identify the information resources that were most useful to conducting a multi-state inventory, including those that are broadly applicable to most regions and those useful to specific watershed characteristics or threat categories
- Develop a brief summary report that documents key information about the nature and types of source water threats identified, the methodology and results of the risk assessment, a prioritized list of contaminants based on the results of risk assessment, a list of the top priority contaminants for which there are significant data gaps, and recommendations

Sub-task 5.4: Guidance and Best Practices

Under this sub-task, the contractor shall support the EPA in documenting best practices for conducting source water threat inventories and risk assessments. This sub-task shall integrate information generated under EPA contract EP-C-15-012 and the other sub-tasks under Task 5. The contractor shall codify these best practices into simple, actionable guidance that describes the business case for conducting a threat inventory, identifies the scope of a basic contamination threat inventory achievable by most water utilities, provides recommendations on expanding the scope of a contamination threat inventory, and presents a comprehensive and detailed list of resources for conducting a threat inventory. Specific activities that the contractor shall perform under this sub-task include:

- Develop an outline or framework for the guidance
- Develop a review draft of the guidance
- Support peer review of the guidance
- Revise the guidance and prepare it for publication

Task 6 – Social Media Monitoring (LOE estimate = 596 hours)

Under Task 6, the contractor shall support EPA in helping utilities use Social Media Monitoring as a tool to monitor for drinking water contamination incidents, public perceptions of water quality and the utility during routine operations, and customer perceptions and actions during a drinking water emergency. Specifically, the contractor shall assess the viability of tailoring social media monitoring to support SRS surveillance and response functions. Using information from interviews previously conducted by EPA (which will be provided to the contractor), the contractor shall develop best practices for leveraging social media monitoring for drinking water utility applications. The contractor shall interview up to six (6) public health entities currently using social media monitoring to investigate public health issues. The contractor shall support EPA in the application of Social Media Monitoring as follows:

- Complete and document interviews of public health professionals using social media monitoring.

- Develop case studies that demonstrate the role of social media in detection of contamination incidents (e.g., through customer complaints or public health surveillance) and response to actual contamination incidents.
- Develop draft guidance for implementing social media monitoring for prospective surveillance and incident response, which includes keyword searches, Boolean search strings, a listing of available social media tools and analytical services, checklists, process flows, and customizable templates (note that this guidance will not be finalized or published during the period of performance for this work assignment).
- Support and help facilitate a user forum of drinking water utility experts who use social media for customer engagement, crises communications, and surveillance of water quality issues.

IV. SCHEDULE OF DELIVERABLES

TASK NUMBER	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan and budget	According to contract.
	Monthly progress reports and populated financial tracking spreadsheet	Monthly
	Work Assignment kickoff meeting to establish priorities and a milestone schedule	July 31, 2019
Task 1: Website Maintenance		
1.1	Address maintenance requests for the WQSR Microsite	Within 3 working days of technical direction
1.2	Address issues with electronic SRS tools (e.g., IMRT and EDT)	Within 3 working days of technical direction
Task 2: Outreach and Training		
2.1	Final version of factsheet, flyer, or poster	Within 10 working days of technical direction
2.2	Final version of training module	Within 40 working days of technical direction
2.3	Final version of workshop materials	Within 30 working days of technical direction
2.4	Final version of webinar materials	Within 25 working days of technical direction
Task 3: Guidance and Tools		
3.1	Final version of guidance product	Within 80 working days of technical direction
3.2	Final version of simple tool	Within 80 working days of technical direction
Task 4: Implementation Projects		
	Technical consultation and review	Within 5 working days of technical direction

	Results of data analysis requests	Within 15 working days of technical direction
	Documentation for workshops and exercises	Within 30 working days of technical direction
	Equipment deployment	Within 40 working days of technical direction
Task 5: Source Water Contamination Preparedness		
5.1	Database/dashboard populated with the reviewed spill records	Within 40 working days of technical direction
5.1	Summary findings from analysis of the spill record	Within 20 working days of technical direction
5.2	Results of Ohio River source water threat inventory and gap analysis	Within 15 working days of technical direction
5.2	Results of Ohio River source water risk assessment and prioritization	Within 30 working days of technical direction
5.2	Final version of summary report for Ohio River source water risk assessment	Within 30 working days of technical direction
5.3	Results of the source water inventory and risk assessment for the multi-state region	Within 20 working days of technical direction
5.3	Summary report for the Multi-state Source Water Threat Inventory and Risk Assessment	Within 20 working days of technical direction
5.4	Draft guidance for conducting a source water threat inventory and risk assessment	Within 40 working days of technical direction
5.4	Final guidance for conducting a source water threat inventory and risk assessment	Within 30 working days of technical direction
Task 6: Social Media Monitoring		
	Interview summaries for public health agencies using social media monitoring for prospective surveillance and incident response	Within 15 working days of technical direction
	Case studies that demonstrate the role of social media in detection of and response to contamination incidents	Within 25 working days of technical direction
	Draft guidance for the application of social media monitoring for prospective surveillance and incident response	Within 40 working days of technical direction
	Summary of support activities undertaken for the social media utility user's forum	Within 2 working days of technical direction

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and §

1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. TRAVEL

As described under Task 2, contractor or subject matter expert travel may be required to support a workshop. For estimating purposes, assume one (1) trip for four (4) travelers lasting three (3) days (two (2) nights). For estimating purposes, assume that the destination for each trip is a medium-large sized city in the Midwest.

As described under Task 4, contractor travel may be required to support implementation projects. For estimating purposes, assume three (3) trips for two (2) travelers lasting three (3) days (two (2) nights). For estimating purposes, assume that the destination for each trip is a medium-large sized city in the Midwest.

As described under Task 5, contractor travel may be required to support the source water contamination threat inventories. For estimating purposes, assume two (2) trips for two (2) travelers lasting two (2) days (one (1) night). For estimating purposes, assume that the destination for each trip is a medium-large sized city in the Midwest.

EPA does not anticipate the need for the contractor to travel in support of Tasks 0, 1, 3 or 6.

VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than $20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer. Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

X. TECHNICAL DIRECTION

The Contract level COR or an authorized individual is permitted to provide technical direction. Technical direction must be within the statement of work of the contract and includes: (1) direction to the contractor which assists the contractor in accomplishing the Performance Work Statement; (2) comments on and approval of reports or other deliverables. Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One (1) copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.

XI. QUALITY ASSURANCE SURVEILLANCE PLAN

All task(s) identified in the Performance Work Statement above are subject to review and approval by the EPA WAM based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, timeliness/deliverables, and document development standards. Additional project specific quality assurance surveillance plan requirements are identified below.

Performance Requirements	**Performance Standards**	**Surveillance Methods**
Performance Standards are applicable to all PWS requirements and will be utilized to determine eligibility for Award Term Options.		
Programmatic Standard: Outputs are based on best available information and resources; Documentation of sources used, not used, and limitations of available data; Description of methodological choices made both conceptually and in data selection. Assumptions utilized in environmental planning and applying engineering principles are clearly documented.	No more than 15% of deliverables and work products for any WA furnished to EPA for review by CL COR/WACOR and QAO shall require revisions to meet the requirements of the QMP and QAPP for the WA.	EPA will review all products for conformance with the requirements of the SDWA Amendments, Clean Water Act and other related mandates, including Small Business Regulatory Enforcement Fairness Act 1996 (SBREFA) and Unfunded Mandates Reform Act of 1995 (UMRA).
Cost Control Standard: Implementation of cost control system to monitor and track project status, that indicate level of budget utilized and forecast remaining budget needs to complete project. The contractor shall notify project COR immediately in cases where issues impact project cost are identified. The	The contractor shall manage costs to the level of the approved ceiling on each individual WA. The contractor shall notify the EPA WACOR, CL COR, and CO when 75% of the approved funding ceiling for any particular WA is reached. If a contractor fails to manage and control cost, any resultant overrun cannot exceed the total contract	The EPA CL COR will routinely discuss the work progress and contract level and individual task order expenditures with the Project Manager. The WACOR will maintain regular contact with the Contractor's designated task order manager/project manager to discuss task order progress and expenditures and will review and verify expenditures and technical

contractor shall provide a risk management strategy that identifies specific project element(s) that adversely impact proposed work plan. The risk management strategy shall present impacts if course is continued without mitigation, and solutions to resolve the issue(s). The risk Management Strategy shall consider process, schedule, prioritization, and cost benefit analysis.	obligation for that period.	progress before invoice payments are authorized.
Schedule Standard: Services and deliverables shall be in accordance with schedules stated in each task order. Unless amended or modified by an approved EPA action, a deliverable that is received 7-days past the due date, will be considered unsatisfactory performance..	No more than 15% of all deliverables per WA shall be submitted more than 3 work days past the due date.	EPA will closely monitor task milestone and deliverable schedules and review the Contract Monthly Progress Reports and any special reporting requirements to compare actual delivery dates to those approved in task orders. EPA will notify the contractor when it becomes apparent that an established schedule will not be met.
Document Development: Documents shall be technically and factually accurate, and suited to the intended audience. The draft version of a document shall meet a standard of no more than 2 typographical and/or grammatical errors per page and require no more than two editorial revisions. Final documents must meet a standard of no more than 2 typographical and/or grammatical errors per document.	No more than 15% of deliverables and work products for any WA furnished to EPA for review by CL COR/WACOR and QAO shall require revisions to meet the requirements of the QMP and QAPP for the WA.	The WAC will review drafts to assess technical accuracy and editorial quality. The WACOR will identify all inaccuracies and needed edits and corrections to the Contractor in the initial review of draft documents

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 4-32

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-15-022	09/01/2015 To 06/30/2020 Base Option Period Number 4	Class VI Rule Implementation

Contractor	Specify Section and paragraph of Contract SOW
Cadmus Group LLC, The	2.2, 2.3, 4.3

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/01/2019 To 06/30/2020

Comments:

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

SFO (*Max 2*): ☐

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

Contract Period:	Cost/Fee:	LOE:
09/01/2015 To 06/30/2020		0
This Action:		1,815
Total:		1,815

Work Plan / Cost Estimate Approvals

Contractor WP Dated:	Cost/Fee	LOE:
Cumulative Approved:	Cost/Fee	LOE:

Work Assignment Manager Name: MaryRose Bayer (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-1981 FAX Number:
Project Officer Name: Nancy Parrotta (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Camille W. Davis (Signature) (Date)	Branch/Mail Code: Phone Number: 513-487-2095 FAX Number: 513-487-2115

PERFORMANCE WORK STATEMENT
EP-C-15-022
Work Assignment 4-32
July 1, 2019 to June 30, 2020

I. ADMINISTRATIVE:

A. Title: Geologic Sequestration: Class VI Rule Implementation and Permitting Support

B. Work Assignment Contracting Officer's Representative (WACOR):

Mary Rose Bayer
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4606M)
Washington, DC 20460
202-564-1981
bayer.maryrose@epa.gov

Alternate Work Assignment Contracting Officer's Representative (WACOR):

Suzanne Kelly
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4606M)
Washington, DC 20460
202-564-3887
kelly.suzanne@epa.gov

C. Quality Assurance:

Task(s) 1 through 4 in this work assignment require the use of primary and/or secondary data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed under: task(s) 0 of WA 0-32, for Tasks 1 and 2; and, task 0 of WA 0-38, for Task 3, consistent with the Agency's Quality Assurance (QA) requirements, appending the Contract Level Quality Assurance Project Plan (QAPP). The project specific QA requirements must be addressed in the monthly progress reports as specified under Task 0, below.

D. Background:

Geologic Sequestration (GS) is the process of injecting carbon dioxide (CO_2) captured from an emission source (e.g., a power plant or industrial facility) into deep subsurface rock formations for long-term storage. It is part of a process known as "carbon capture and storage," or CCS. EPA's Underground Injection Control (UIC) Program regulations are designed to protect underground sources of drinking water (USDW) from injection related activities. Endangerment can occur when well construction, operation, maintenance, conversion, plugging, abandonment, and other injection activities cause a fluid to enter a USDW or when the fluid is injected directly into a USDW. To prevent endangerment, EPA's UIC Program Class VI regulations establish "minimum requirements" for: permitting, siting, area of review evaluation, corrective action, well construction, operation, inspection, monitoring, recordkeeping, reporting, post-injection site care, plugging and abandonment, site closure and

financial responsibility. EPA currently implements the Class VI regulations nationally, in all states, tribes and territories other than North Dakota. The tasks under this work assignment support Class VI implementation, technical permitting assistance, and fulfillment of the Agency's goal of protecting USDWs.

II. OBJECTIVE:
The contractor shall support EPA in: supporting implementation through Class VI-related technical assistance and permit applicant support; conducting literature reviews and research related to GS and CCS issues.

PWS: 2.2, 2.3, 4.3
LOE: 1815 hours

III. TASK DETAIL:
The contractor shall perform the following tasks:

Task 0: Work Plan and Monthly Progress Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 0-32, 1-32, 2-32, and 3-32; and, that Task 4 is a continuation of WA 2-38. The work plan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed under Task(s) 0 of WA 0-32 and Task 0 of WA 0-38. This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The contractor shall immediately notify the Contract Level Contracting Officer Representative (CL-COR) and Work Assignment Contracting Officer Representative (WACOR) if any changes to the tasks involving the collection and analysis of the data occur and prepare a new SQAPP supplementing the Contract QAPP accordingly. Work on these tasks cannot proceed until the contractor receives notification of the new SQAPP approval from the CL-COR via e-mail.

Task 1: Regional Class VI Permitting and Technical Evaluation Support

The EPA directly implements the Class VI rule in all States, Tribes and Territories except North Dakota (which received primary enforcement responsibility in 2018). Due to the technical

complexity of Class VI GS well requirements, permit applicants and EPA Regions have turned to the EPA GS team (located in Washington, DC) for support in the permitting process. The contractor shall provide support to EPA in early discussions and data/information evaluations with prospective Class VI permit applicants and owners or operators, as appropriate.

Subtask 1.1: Permitting Support During the Permit Application Phases

The contractor shall support EPA in reviewing select pre-application information and/or parts of draft Class VI geologic sequestration permit applications (e.g., initial Area of Review (AoR) model; project plans; financial responsibility demonstrations; non-endangerment demonstrations; well construction schematics; etc.). EPA will provide the contractor with the draft permit application and/or information upon receipt from the (prospective) permit applicants/Regions seeking support. For estimation purposes, the contractor shall assume supporting EPA in review of six discrete technical areas/topics (see examples above).

Within 10 weeks of receipt of the draft permit application (or information), the contractor shall conclude the following:

1) Review of the draft permit application or information to ensure that the information submitted is complete, in accordance with the requirements of 40 CFR 144 and 146;
2) Identification of technical issues that may require additional attention and detail; and,
3) Development of a list of questions that require follow-up correspondence with the permit applicant or research on the part of the permit writer.

The contractor shall provide a draft summary report of their review including responses to items 1 through 3 above to the EPA WACOR for review and comment. Upon receipt of comments from the EPA WACOR, the contractor shall finalize each permit summary report within 10 business days. For purposes of estimation, the summaries will be approximately 10-30 pages in length.

Subtask 1.2: AoR Reevaluation During Injection and Post-Injection Phases

The contractor shall provide technical support to EPA in reviewing information on the geological conditions at permitted Class VI geologic sequestration projects –particularly with respect to the Area of Review delineated using computational modeling (e.g., reviewing the model input and output files provided to the contractor by the EPA WACOR). During this performance period, it is possible that a permittee of a Class VI project will submit an updated AoR. If EPA receives a revised AoR, the contractor shall conduct independent model simulations using STOMP (Subsurface Transport Over Multiple Phases) to inform decisions regarding the appropriateness of the permittee's AoR and associated model simulation(s) at the Class VI project. Following model simulations, the contractor shall develop a report that is informed by the independent model simulations and that addresses the following questions:

- Do the independent modeling results conducted by the contractor agree with those submitted by the permittee? How do the model simulations differ between the

permittee's submittals and the contractor's simulations? Are the permittee's simulations similarly conservative in comparison to the contractor's simulations? Will the submitted modeled parameter values result in a conservative outcome?
- Are the sensitivity analyses a valid indicator of a conservative outcome?
- Are the submitted geological models valid representations of the geological conditions at the site when compared against the other project-related information submitted by the permittee?
- Is the calibration valid? If yes, how was that conclusion reached? If not, what recommendations can be made to address this issue?
- Based on the results of the analysis and the responses to these questions, does the contractor recommend any revisions to the original model or running additional simulations? If yes, what additional conditions should be considered?
- How does the reevaluation compare to the initially delineated Area of Review (i.e., in the permit at the time of authorization to inject)?

For estimation purposes, the contractor shall assume completing not more than one of these analyses during the performance period and shall assume that the report generated under this Subtask will be 15-20 pages in length. Following receipt of the appropriate supporting documents from the EPA WACOR, the contractor shall conduct the modeling simulations and provide a draft report to the EPA WACOR for review and comment within 10 weeks. Upon receipt of comments by the EPA WACOR, the contractor shall finalize the report within 10 business days.

Subtask 1.3: Data Evaluation During the Injection and Post-Injection Phases

During the performance period of this WA, the Agency may receive additional data on permitted Class VI projects including: operational reporting; testing and monitoring results; financial responsibility annual certification. This data will require analysis by geologists, well engineers, financial experts, and computational modeling experts to support EPA decision-making related to the Class VI wells.

To support the evaluation of this information, the Contractor shall, upon receipt of technical direction and copies of the data (e.g., operational reporting; testing and monitoring results; financial responsibility documents), review the data/information and prepare a summary report that:

- Assesses whether the information meets the relevant requirements at 40 CFR 146.83 through 146.94;
- Identifies technical issues or questions for the permittee related to the information collected/submitted by the permittee;
- Identifies any discrepancies between the predicted values and the measured values resulting from testing and monitoring at the project; and
- Identifies the potential need for a permit modification per requirements at 40 CFR 144.39 and 144.41.

For estimation purposes, the Contractor shall upon receipt of information from the EPA WACOR, review and develop a draft summary within 20 business days. Upon receipt of comments on the draft summary from the EPA WACOR, the contractor shall finalize the summary within ten business days. The Contractor shall assume conducting one evaluation during the performance period for this WA.

Subtask 1.4: Technical Calls

The contractor shall anticipate participating in six, two-hour conference calls with EPA, prospective applicant(s), and permittees. It is not anticipated that the outcome of these calls will change the scope of the contractor's work but will serve to facilitate information sharing and communicate project-specific details to inform collective understanding and to relay details about the Class VI rule to permit applicants and permittees.

Task 2: GS and CCS Issue Paper Development Support

Many critical economic, scientific, and institutional issues arise during rule implementation and permitting that require analysis to support Agency deliberations, management briefings, and internal discussions. Because of the complex nature of GS and CCS, some issue papers may be required to ensure that the Agency has the information to implement the rule and coordinate with co-regulators in 2019 and 2020.

The background papers may address topics such as:

- Geologic Sequestration injection and monitoring technology developments and innovations;
- The Class VI permit application review process;
- Domestic enhanced recovery operations;
- Others to be determined.

The contractor shall develop approximately two issue papers in support of this task. Each issue paper shall be 10-20 pages in length. The contractor shall also perform a literature search and review of existing information to develop these issue papers. A draft of each issue paper shall be delivered in an electronic form to the EPA WACOR no more than 20 business days after receipt of technical direction via email from the EPA WACOR. Upon receipt of comments from the EPA WACOR, the contractor shall finalize and deliver a final issue paper within 15 business days.

Task 3: Geologic Sequestration Data Tool (GSDT) User Support

As a follow-on to work conducted under WA 1-38, 2-38, and 3-32, the contractor shall support EPA and permitting authority users in use of the GSDT. Support may include: coordinating with users to understand the challenges encountered; and, providing recommendations to the EPA WACOR for resolving challenges and increasing clarity of the GSDT materials. It is also

anticipated that user support (e.g., updating user account information or summarizing GS Data Tool capabilities) may be required. The contractor should draw on previous experience with and knowledge of Class VI permitting to provide user support.

Subtask 3.1: GS Data Tool User Guide/Documentation Updates

During the performance period of this work assignment, it is anticipated that EPA may be required to make minor updates to the GSDT (i.e., any of the nine modules that comprise the GSDT) to, for example, correct wording, ensure consistency with the regulations and implementation experience, and respond to user challenges.

For estimation purposes, the Contractor shall anticipate participating in the following types of activities:

- Suggesting edits to existing documents on module design/structure to ensure user challenges are addressed and/or documentation is consistent with any module updates;
- Updating existing GSDT user support documents/fact sheets/one-pagers to reflect GSDT module updates;
- Providing alternate/edited text to the EPA WACOR for integration into the GSDT (e.g., clarifying language for help text boxes or instructions); and
- Coordinating with the EPA WACOR to identify strategies that will meet user needs.

For estimation purposes, the contractor shall anticipate providing support under this subtask to address twelve issues/challenges encountered with the GSDT during the performance period of this work assignment.

Within two weeks of identification of challenges/issues (delivered/communicated to the Contractor by the EPA WACOR), the Contractor shall propose a draft solution/submit updated text/suggest edits to the EPA WACOR. Draft updates shall be provided in WORD or PowerPoint (depending on the appropriate format for presenting information on an issue) to the EPA WACOR. Final updated documents shall be provided via email within two weeks of receipt of EPA WACOR comments.

Subtask 3.2: User Support

The contractor shall provide support to users of the GS Data Tool, including both EPA Headquarters and Regional users and permit applicant/owner or operator users. This support will include activities such as creating new user accounts, updating user account information, summarizing GS Data Tool capabilities, coordinating with GS Data Tool development personnel to address users' technical problems, and other similar activities.

For estimation purposes, the contractor shall anticipate implementing twelve such actions over the course of the performance period for this WA. User support activities shall be delivered within one week of receipt of technical direction from the EPA WACOR.

IV. SCHEDULE OF DELIVERABLES:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Work Plan and Monthly Progress Reports		
	Work plan, budget, QAPP and QA supplemental	According to contract
	Monthly progress and financial reports	Monthly
Task 1: Regional Class VI Permitting and Technical Evaluation Support		
	1.1 Draft permit summary report	Within 10 weeks of receipt of draft permit application/information from the EPA WACOR
	1.1 Final permit summary report	10 business days after receipt of comments from the EPA WACOR
	1.2: Draft report of the AoR reevaluation	Within 10 weeks of receipt of information from the EPA WACOR
	1.2: Final report of the AoR reevaluation	Within 10 business days of comments from the EPA WACOR
	1.3: Draft summary report	Within 20 business days of receipt of information from the EPA WACOR
	1.3: Final report	Within 10 business days of receipt of comments from the EPA WACOR
Task 2: GS and CCS Issue Paper Development Support		
	Draft issue paper(s)	20 business days after receipt of written technical direction from the EPA WACOR
	Final issue paper(s)	15 business days after receipt of comments from the EPA WACOR
Task 3: GS Data Tool User Support		
	Subtask 3.1: Draft User Documentation for module updates	Within one month of receipt of technical direction from the EPA WACOR
	Subtask 3.1: Final User Documentation for module updates	Within two weeks of receipt of comments from the EPA WACOR
	Subtask 3.2: User support activities	Within one week of receipt of technical direction from the EPA WACOR

V. MISCELLANEOUS

Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

VI. TRAVEL

The contractor shall not anticipate any travel associated with this WA over the duration of the performance period.

VII. MEETINGS, CONFERENCES, TRAINING EVENTS, AWARD CEREMONIES AND RECEPTIONS

All appropriate clearances and approvals required by Agency policy in support of any and all conference related activities and expenses, including support of meetings, conferences, training events, award ceremonies and receptions, including the form 5170 for all meetings costing more than $20,000, shall be obtained by the EPA CL-COR as needed and provided to the Contracting Officer (CO). Work under conference related activities and expenses shall not occur until this approval is obtained and provided by the EPA CL-COR.

VIII. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

IX. PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

X. QUALITY ASSURANCE AND SURVEILLENCE PLAN (QASP)

The contract QASP is applicable to this WA.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 4-32

☐ Other ☒ Amendment Number: 000001

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-15-022	09/01/2015 To 06/30/2020 Base Option Period Number 4	Class VI Rule Implementation

Contractor: Cadmus Group LLC, The

Specify Section and paragraph of Contract SOW: 2.2, 2.3, 4.3

Purpose:
- ☐ Work Assignment
- ☒ Work Assignment Amendment
- ☐ Work Plan Approval
- ☐ Work Assignment Close-Out
- ☐ Incremental Funding

Period of Performance: From 07/01/2019 To 06/30/2020

Comments:
The purpose of this amendment 1 to Cadmus (EP-C-15-022) WA 4-32 is to replace the WACOR to Jeff Jollie.

☐ Superfund — Accounting and Appropriations Data — ☒ Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee:	LOE:
Contract Period: 09/01/2015 To 06/30/2020		1,815
This Action:		0
Total:		1,815

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Jeff Jollie (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-564-3886
	FAX Number:	
Project Officer Name: Nancy Parrotta (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	202-564-5260
	FAX Number:	
Other Agency Official Name (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	
	FAX Number:	
Contracting Official Name: Camille W. Davis (Signature) (Date)	Branch/Mail Code:	
	Phone Number:	513-487-2095
	FAX Number:	513-487-2115

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 4-34

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-15-022	09/01/2015 To 06/30/2020	Decon Strategy
	Base Option Period Number 4	

Contractor: Cadmus Group LLC, The

Specify Section and paragraph of Contract SOW: 2.3.2, 2.4.2, 2.4.6, 3.4.6, 5.1, 5.2, 6.1.3, 6.1.6

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/01/2019 To 06/30/2020

Comments:
Additional PWS Paragraphs:7.1.1, 7.2.1, 7.2.3, 7.2.6, 7.6, 9.1, 9.7

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

SFO (*Max 2*) ☐

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee	LOE
Contract Period: 09/01/2015 To 06/30/2020		0
This Action:	7,210	
Total:	7,210	

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: Marissa Lynch	(Signature)	(Date)	Branch/Mail Code: Phone Number: 202-564-2761 FAX Number:
Project Officer Name: Nancy Parrotta	(Signature)	(Date)	Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:
Other Agency Official Name:	(Signature)	(Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Camille W. Davis	(Signature)	(Date)	Branch/Mail Code: Phone Number: 513-487-2095 FAX Number: 513-487-2115

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 4-34
Performance Period: 7/01/19-6/30/20

Title: Decontamination Products to Enhance Water Sector Preparedness for All Hazards

Work Assignment Contracting Officer Representative (WACOR):
Marissa Lynch
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW
(MC: 4608T)
Washington, DC 20460
202-564-2761
lynch.marissa@epa.gov

Alternate WACOR:
John DeGour
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW
(MC: 4608T)
Washington, DC 20460
202-564-3212
degour.john@epa.gov

PWS Sections: 2.3.2, 2.4.2, 2.4.6, 3.4.6, 5.1, 5.2, 6.1.3, 6.1.6, 7.1.1, 7.2.1, 7.2.3, 7.2.6, 7.6, 9.1, 9.7

Quality Assurance:
The tasks in this work assignment do not require environmental measurements. Consistent with the Agency's quality assurance (QA) requirements, the contractor does not need to supplement the Contract Level Quality Assurance Project Plan (QAPP) or to prepare a Project-Specific Quality Assurance Project Plan (PQAPP).

Purpose:
Contractor support is required to provide technical and administrative support to develop, finalize, implement and conduct training on various decontamination tools and resources. These tools and resources will help the water sector enhance preparedness for contamination incidents from all hazards in drinking and wastewater. The purpose of this work assignment is for the contractor to:

1. Complete development of DPAS and the Decontamination TTX Toolkit. This will allow flexibility for potential changes to the current tool based on feedback from the Water Sector Coordinating Council, EPA's Office of General Counsel and WSD Upper Management.

2. Completion of the TTX will include the contractor finalizing development of the TTX and assisting the WACOR to plan, coordinate and conduct two (2) pilot projects; one (1)

drinking water utility and one (1) waste water utility. The contractor shall assist the EPA WACOR in identifying the 2 utilities to pilot the TTX toolkit. The contractor will develop a one- hour training that provides an overview and instructions on usage of the toolkit. The training will be provided to the utilities prior to the pilot tests.

Once the pilots are completed, the contractor shall summarize the lessons learned, develop after action reports and make any necessary revisions to the Toolkit and the supporting materials. The contractor will provide the updated web-based tool for final review. After review by the WACOR, the contractor shall finalize the web-based tool for release and assist in all necessary communication and outreach.

3. Develop an interactive training content and execute 10 face to face trainings for Decontamination Preparedness and Assessment Strategy (DPAS) and the Water Sector Decontamination Tabletop Exercise Toolkit. This task will include development of a day and a half of instructional training for the DPAS and the Water Sector Decontamination Tabletop Exercise Toolkit during the training. The training will allow the users to thoroughly walk through the tools, understand the material (content) and prepare for a contamination incident. It will allow them to engage their local response partners in preparedness activities to assist with readying the community for critical remediation activities. After taking the training, users will be able to practice what they have learned on a day to day basis. The contractor will provide support (e.g. facilitation, note taking, and etc.) for 10 face to face trainings. The contractor will assist the WACOR in identifying locations, conference room, scheduling dates, conferences calls with organizers, outreach, and etc. In addition, the contractor will assist the EPA WACOR in attaining CEUs for the training.

4. Conduct Decontamination Preparedness and Assessment Strategy Workshops. The contractor will execute the workshop materials and revise and/or update the DPAS Workshop content based on lessons learned. The contractor will assist the WACOR in identifying locations, venues, scheduling dates, conference calls with organizers, outreach, and etc.

5. Finalize web-based user interface for the Decontamination Online Training for the Water Sector (Drinking Water and Wastewater Utilities). The online training will be scorm compliant and will be developed using software that can easily be migrated to the EPA's Learning Management System. The contractor will update and finalize the content of the decontamination online training. Development of the training should leverage information from the Decontamination and Assessment Strategy (DPAS). In addition, the design of the training should follow the organization flow of DPAS. The training should include life experiences /case studies and scenarios to articulate the content of the training for the user. The training should also leverage any current decontamination information/resources, research, and products (videos) from various EPA programs that

add value. Also, the contractor will determine the best interactive layout/software program for development of the online training. Once the training content is finalized, the contractor will assist the EPA WACOR in attaining CEUs for the training and conducting all necessary outreach for the training. The outreach will focus on working closely with Water Sector associations to develop informational materials. These items may include bulletin blasts, e-mails, blurbs, factsheets, and/or flyers to educate utilities and responders about the decontamination training opportunities available to aid in remediation and recovery activities following an all-hazard incident.

6. Continue to facilitate and help the workgroup consisting of Environmental Protection Agency (EPA), Water Sector partners and stakeholders in coordinating activities on decontamination efforts. This includes following up on the progress of recommendations and decontamination activities listed in the 2008 *Critical Infrastructure Partnership Advisory Council (CIPAC) Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan.*

7. Provide programmatic support necessary to update the decontamination website and other outreach and communication activities (i.e., Webcasts for DPAS, TTX, and Decontamination Training; flyers, blurbs, bulletins, and etc.). Provide technical assistance for the development and incorporation of a biological scenario (*Francisella Tularensis)* into the Decontamination TTX toolkit. Provide facilitation for workshops at various conferences.

8. Finalize the Decontamination Regulatory Wavier Guide, which will provide water utilities with a regulatory process on how to attain a waiver during a contamination incident.

9. Conduct research on contaminants of interest to the water sector. This research will provide more decontamination information to water utilities and responders to use during a contamination incident.

Background:

The mission of the United States Environmental Protection Agency's Water Security Division (WSD) is to provide support to drinking water and wastewater systems to improve the security and resilience of our nation's water infrastructure. WSD has developed a variety of programs, training and resources to support Water Sector emergency preparedness in support of the Presidential Policy Directive 21 (PPD-21) and Homeland Security Presidential Directive 10 (HSPD-10). Under the PPD-21, federal departments and agencies have to identify and prioritize critical infrastructure and key resources and to protect them from terrorist attacks. PPD-21 provides a national approach to protecting critical infrastructure. Under HSPD-10, EPA is charged with developing strategies, guidelines, and plans for decontamination. Drinking water

and wastewater systems can face major challenges when confronting a contamination incident—whether accidental or intentional, natural or man-made. The challenges include public health, as well as isolating and treating contaminated water. Challenges also include decontaminating the storage, treatment, and distribution infrastructure for recovery and return to service. Decontamination activities also support the priorities identified within the "*2017 Roadmap to a Secure and Resilient Water and Wastewater Sector".*

In 2007, EPA's Water Security Division worked closely with its partners and stakeholders to identify and prioritize key issues for the water sector in addressing decontamination of water systems from all-hazards contamination incidents. In October 2008, EPA and its partners prepared a strategy report, "*CIPAC Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan, Water Sector Decontamination Priorities*." The strategy provides recommendations on the priority issues and concerns as they relate to decontamination for the Water Sector. To date, a significant amount of work has been undertaken to further support decontamination research and policy needs and to communicate these efforts to Water Sector stakeholders. Of the 35 recommendations listed in the 2008 report, 23 are in progress and 3 have been identified as completed.

The WSD has worked with stakeholders to develop a suite of products including tools and resources to help address emergency response and decontamination efforts. These tools and resources will benefit the following water sector customers, partners and stakeholders: drinking water and wastewater utilities, emergency responders, state and local governments, other EPA programs and offices such as the Office of Wastewater Management (OWM), Office of Land and Emergency Management's (OLEM) Chemical, Biological, Radiological and Nuclear Consequence Management Advisory Division (CBRN CMAD), Environmental Response Team (ERT), and On-Scene Coordinators (OSCs). Additional partners include the National Homeland Security Research Center (NHSRC), Office of Homeland Security (OHS), Office of Recovery and Resource Conservation, Office of Chemical Safety and Pollution Prevention (OCSPP), critical infrastructure partnership partners (i.e., other Federal agencies, Regions, states, and local governments), and trade associations (i.e., American Water Works Association, Association of State Drinking Water Administrators (ASDWA) and Water Environment Federation (WEF).

Scope of Work:

All direction under this work assignment will be provided as written technical direction from the WACOR or alternate WACOR. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days with a copy to the Contract-Level Contracting Officer's Representative (CL-COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL-COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

Under this work assignment, the WACOR will provide the contractor with electronic copies of the draft tools and resources for the contractor to perform the detailed tasks below.

Task Detail:

Task 0 – Work Plan Submission, Progress Evaluations and Monthly Reports

The contractor shall prepare a detailed work plan and budget for the accomplishment of the indicated tasks in accordance with the clause Work Assignments (EPAAR 1552.211-74). The work plan shall include a description of: (a) proposed staff; (b) the number of hours and labor classifications proposed for each task, broken down to task level, to include both prime contractor and subcontractor labor; and (c) a list of deliverables, with due dates and a schedule for deliverables.

In addition, the work plan shall include the requirement that all electronic and information technology (EIT) and all EIT deliverables be Section 508 compliant in accordance with the policies referenced at http://www.epa.gov/accessibility. If a subcontractor is proposed and the subcontractor is outside the metropolitan DC area, the contractor shall include information on plans to manage work and contract costs of proposed subcontractor.

The work plan shall also specify that a project-specific PQAPP supplement to the Quality Management Plan (QMP) is not required.

This task also includes monthly progress and financial reports which are to be submitted pursuant to Attachment 2 of the contract. Monthly financial reports must include a table with the invoice LOE and costs broken out by the tasks in this WA. The work plan shall also provide an analysis of the existing and projected constraints and the feasibility of accomplishing the project's purpose. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and if so, how they are being resolved.

The tasks under this work assignment do not require the acquisition of "off-site" facilities for conferences and meetings as defined in the IPN 12-05 and the events associated with this work assignment are not covered by EPA Order 1900.3 and do not require EPA Form 5170.

Task 1: Complete Decontamination Preparedness and Assessment Strategy (DPAS)

This task is to complete the development of DPAS. This will include adjudicating all comments for DPAS (Water Sector Coordinating Council, EPA's Office of General Counsel and WSD Upper Management.) The contractor will revise DPAS based on the comments, where necessary. In addition, the contractor will finalize the tool and assist the WACOR with all necessary outreach on DPAS.

Task 2: Complete Decontamination Tabletop Exercise (TTX) Trainer's Toolkit
This task is to complete the TTX. The contractor shall help the WACOR to plan, coordinate and conduct two (2) pilot projects; one (1) drinking water utility and one (1) waste water utility. The contractor shall assist the EPA WACOR in identifying the 2 utilities to conduct the pilots. The contractor will develop a one- hour instructional training that provides an overview and usage of the toolkit. The training will be provided to the utilities prior to the pilot tests.

Once the pilots are completed, the contractor shall summarize the lessons learned, develop after action reports and make any necessary revisions to the Toolkit and the materials. The contractor will provide the updated web-based tool for final review. After review by the WACOR, the contractor shall finalize the web-based tool for release and assist in all necessary communication and outreach.

Task 3: Decontamination Face to Face Training
Under WA 3-34, the contractor began to develop the Decontamination Preparedness and Assessment Strategy (DPAS) and the Decontamination Tabletop Exercise (TTX) Toolkit. These preparedness tools will allow water utilities to:

- identify utility-specific actions that can be taken prior to an event to increase preparedness,
- increase familiarity with the remediation process, and
- build relationships and improve coordination between response partners

In this option period, the contractor shall develop an interactive training content for DPAS and the Decontamination TTX Toolkit. The training material should thoroughly walk through the phases and steps of each tool. The training should include:

- Training objectives
- Potential knowledge questions or activities that can assess what the user has learned at various points throughout the training.
- Scenario
- 3 Phases of Remediation
- 10 Step process for development of TTX
- Resource Demonstration

Once the training material is complete, the contractor will facilitate 10 regional face to face sessions for DPAS and the Decontamination TTX Toolkit. This training will be developed for a day and a half of instructional training to cover both tools. The contractor will provide support (e.g. facilitation, note taking, and etc.) for the trainings. The contractor will assist the WACOR in identifying locations, venues, scheduling dates conferences calls with organizers, outreach and etc. The contractor will also assist the EPA WACOR in attaining CEUs for the training.

Task 4: Decontamination Preparedness and Assessment Workshops
In 2018, WSD developed the DPAS workshop. The workshop will allow participants to walk through the complexities of remediation by filling out the preparedness checklist within the strategy. This preparedness checklist will help the participants identify resources, tools and

specific actions that will aid them in being proactive and prepared to address a contamination incident impacting their utility. At the end of the workshop, participants will:

- Understand and become familiar with the steps of the remediation process.
- Identify utility-specific actions to be taken prior to an incident.
- Understand and know where to locate other resources and tools that may be helpful to prepare for and respond to an incident.
- Become aware of public health and environmental safety considerations that apply to each phase of remediation

Under this task, the contractor shall facilitate for approximately (2) workshops and revise and/ or update the workshop materials based on lessons learned. The contractor will assist the WACOR in identifying locations, venues, scheduling dates, conferences calls with organizers, outreach and etc.

Task 5: Decontamination On-line Training for the Water Sector

This task addresses recommendation 6-4 of the 2008 "*CIPAC Water Sector Decontamination Working Group Recommendation and Proposed Strategic Plan, Water Sector Decontamination Priorities*." The contractor shall develop Decontamination Online Training for the Water Sector, in accordance with technical direction. The training should encompass the Decontamination Preparedness and Assessment Strategy (DPAS) content. The training should address the following subtasks of Recommendation 6-4:

- Include the most current and reliable information/guidance for decontamination of water Systems
- Address both contaminated material (water and solid) and decontaminated wastes resulting from the decontamination process
- Include the management and disposal of waste created by decontamination of the infrastructure and from flushing activities
- Include discussions on clearance, wastewater issues, and coordination with other agencies
- Include NIMS/ICS guidance
- Identify the types of training and exercises needed for the water sector
- Leverage previously developed training models from other sectors (e.g., airport preparedness training models)
- Leverage relevant ongoing research
- Leverage existing disposal and decontamination guidance including:
    - RPTB Module 6
    - The WSI Remediation and Recovery (R/R) Plan within the Consequence Management Plan Guidance (CMPG)
    - A Disposal Decision Support Tool for Disposal of Contaminated Building Water System
    - NACWA Planning for Decontamination of Wastewater: A Guide for Utilities

The contractor should also leverage previously developed training content provided by the WACOR. The contractor shall update the content and develop an accessible web-based tool that will provide users with options for treatment, containment, disposal of contaminated water,

resources, references and knowledge questions necessary to decontaminate their water system and become resilient following an all-hazard contamination incident. The training should provide the user with a certificate of completion, list of objectives, length of training, training developer contact information/details, as well as any other pertinent information required for users to obtain continuing education units within their respective state.

The web-based training shall be developed using an accessible programming language and computing platform that will maximize compatibilities with browsers (e.g. Internet Explorer), various operating systems (e.g. Windows), internet access (e.g. high speed) and devices (e.g. tablets). The online training will be scorm compliant and will be developed using software that can easily be migrated to the EPA's Learning Management System. The contractor shall provide the WACOR with a mockup of the training for internal and external review. The WACOR will provide comments and after programming, the contractor shall provide the WACOR with the draft final web-based training for testing and final review. After review by the WACOR, the contractor shall make necessary changes and finalize for release.

In addition, the contractor will work with the WACOR to facilitate pilot testing of the Decontamination On-line Training with 5 drinking water and wastewater utilities. Once the piloting of the On-line Training is completed, the contractor will update the training based on lessons learned and recommendations from pilots, if necessary.

After finalization of the tool, the contractor shall assist the WACOR to conduct outreach for the On-line training (webinars, blurb, and etc).

Task 6: Subject Matter Experts Decontamination Workgroup

This task is to continue to support/facilitation the workgroup consisting of Environmental Protection Agency (EPA), Water Sector Utilities, Water Sector Associations, State and Federal Agencies in coordinating Decontamination efforts. This will include scheduling conference calls, webinars, face to face meetings to obtain feedback on decontamination projects and adjudicating comments, where necessary.

Within this task, the contractor shall assist the EPA WACOR to:

- Plan, schedule and facilitate four (4) conference calls and one (1) face-to-face meeting to discuss current decontamination projects and a path forward.

Task 7: Decontamination Programmatic Support

The objective of this task is to provide scientific, engineering, training and technical support to facilitate and enhance the overall programmatic aspects of decontamination for the Water Sector. The contractor shall be tasked to support collaborations with other federal agencies, water utilities, and EPA regional personnel as needed to further the mission of Water Sector decontamination. Specific activities under this task will be assigned through written technical direction in response to decontamination program needs and shall be within the general scope of this work assignment. Tasks may include:

- Develop, review and conduct Decontamination webcasts with interactive polling questions for DPAS (6), TTX (4) and Disposal Guide (5).
- Facilitate outreach to various water associations, utilities, emergency responders, states and local governments on DPAS, TTX, and Decontamination training.
- Collaborative work with the WLA team to develop workshops for small tribal utilities.
- Provide technical assistance to develop and incorporate the biological scenario (*Francisella Tularensis)* into the Decontamination TTX Toolkit.
- Continue to update the Decontamination Website and plan, develop and conduct a series of webinars (no more than 5) on decontamination related activities and issues. For the webinars, the contractor, among other things, shall determine presenters' availability, prepare agenda and other related materials, take notes during the webinar, arrange logistics when needed for conference rooms, etc, and conduct the webinar.
- Work with NHSRC and other EPA program offices to identify resources available within EPA to address 2008 CIPAC Recommendations 8-3 and 6-1. Develop path forward and action plan (deliverable- guidance, factsheet, tool) based on findings.

Task 8: Decontamination Regulatory Wavier Guide

The objective of this task addresses recommendation 12-1 of the 2008 CIPAC Report. This task will provide water utilities with the regulatory process on how to attain waiver prior to a contamination incident. The document/ guide should encompass some of the following items:

- the steps required to initiate a case-by-case review of permitting challenges,
- role of disaster declaration,
- any regulatory changes due to population served,
- waivers and suspensions consistent in approach across all EPA regions and states,
- regulatory issues that may apply to discharge/disposal, decontamination of infrastructure, treatment and return to service.

Contractor shall leverage lessons learned from Hurricane Katrina, BP Spill, and 2001 Anthrax attacks. The contractor should reference Office of Enforcement and Compliance Assurance (OECA) web page for waiver examples. Also, the contractor shall reference other EPA programs such as OEM, ORCR, for additional waiver information.

Task 9: Decontamination Research of Contaminants

The objective of this task addresses recommendation 2-4 of the 2008 CIPAC Report. This task will provide water utilities and responders with decontamination information related to CBR contaminants. The research will gather decontamination information from other agencies and resources. The information will be incorporated into WCIT.

Under this task, the contractor will assist the WACOR to identify specific contaminants of concern to the water sector. The contractor will conduct research on decontamination information for those specific contaminants and vet the information thoroughly through peer review.

Special Reporting:
The Contractor shall submit a Monthly Progress Report detailing activities undertaken and completed each month with an indication of upcoming tasks to be performed and anticipated problem areas.

Meetings, Conferences, Training Events, Award Ceremonies and Receptions:

No single event under this work assignment is anticipated to exceed $20,000. The contractor shall immediately notify the EPA Contracting Officer, CL-COR and WACOR of any anticipated event involving support for a meeting, conference, workshop, symposium, retreat, seminar or training that may potentially incur $20,000 or more in cost during performance. Conference expenses are all direct and indirect costs paid by the government and include any associated authorized travel and per diem expenses, room charges for official business, audiovisual use, light refreshments, registration fees, ground transportation and other expenses as defined by the Federal Travel Regulations. All outlays for conference preparation should be included, but the federal employee time for conference preparation should not be included. After notifying EPA of the potential to reach this threshold, the Contractor shall not proceed with the task(s) until authorized to do so by the Contracting Officer.

Schedule of Deliverables:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan, budget, and QA supplemental (APS)	According to contract
	Monthly progress reports	Monthly
Task 1: Complete Decontamination Preparedness and Assessment Strategy (DPAS)		
	Finalize DPAS	within 2 weeks via written Technical Direction
	Adjudicate all comments	
	Revise DPAS based on comments received	
Task 2: Complete Decontamination Tabletop Exercise (TTX) Trainer's Toolkit		
	Finalize TTX	within 2 weeks via written Technical Direction
	Pilot Test Web-based tool with utilities	
	Revise tool based on lessons learned from Pilot tests	
	Revise Interface based on EPA's feedback	
	Final web-based tool	
	Develop Instructional Training and assist with outreach	
Task 3: Decontamination Face to Face Training		
	Develop Draft Interactive Instructional Training for DPAS	within 3 weeks via written Technical Direction
	Develop Draft Interactive Instructional Training for TTX	within 3 weeks via written Technical Direction

	Revise Training Content for DPAS based on WACOR comments	within 2 weeks via written Technical Direction
	Revise Training Content for TTX based on WACOR comments	within 2 weeks via written Technical Direction
	Finalize Training Content for DPAS and TTX	within 2 weeks via written Technical Direction
	Prepare and conduct face to face trainings for DPAS (Obtain CEU)	TBD
	Prepare and conduct face to face trainings for TTX (Obtain CEU)	TBD
Task 4: Decontamination Preparedness and Assessment Strategy Workshops		
	Revise and or update content from lessons learned	within 2 weeks via written Technical Direction
	Conduct workshop	TBD
	• Identify location, conference room	TBD
	• Schedule conference calls with organizers	TBD
	• Develop agenda, certificates, feedback forms, and etc.	TBD
Task 5: Water Sector Online Decontamination Training		
	Update/create training material based on previously developed DPAS content	within 3 weeks via written Technical Direction
	Address EPA's comments on updated content	within 2 weeks via written Technical Direction
	Revise content from internal and external review	within 3 weeks via written Technical Direction
	Finalize content and provide online training mock-up	within 2 weeks via written Technical Direction
	Address EPA's comment on mock-up	within 2 weeks via written Technical Direction
	Draft web-based online training	within 3 weeks via written Technical Direction
	Revise online training based on EPA's feedback	within 3 weeks via written Technical Direction
	Pilot Test training with utilities	TBD
	Revise training based on lesson learned from Pilot tests	within 3 weeks via written Technical Direction
	Revised Interface based on EPA Feedback	within 2 weeks via written Technical Direction
	Finalize online training	within 2 weeks via written Technical Direction
	Develop Instructional Training and assist with outreach	within 2 weeks via written Technical Direction
Task 6: Subject Matter Expert Decontamination Workgroup		
	Develop invitation emails, schedule conference calls	within 2 weeks via written Technical Direction
	Develop Agendas	within 2 weeks via

		written Technical Direction
	Conduct conference calls/webinars/webcasts	within 2 weeks via written Technical Direction
	Conduct face-to-face meeting (if necessary)	within 2 weeks via written Technical Direction
Task 7: Decontamination Programmatic Support		
	Provide Outreach and communication for (webcasts DPAS (6), TTX (4) and Disposal Guide (5))	within 2 weeks via written Technical Direction
	Develop mini workshops for small tribal utilities	within 3 weeks via written Technical Direction
	Biological Scenario Inclusion into TTX	within 3 weeks via written Technical Direction
	Provide Outreach for Decontamination Tools (DPAS, TTX and Online Training)	within 2 weeks via written Technical Direction
	Prepare materials and update Decontamination website as needed	within 2 weeks via written Technical Direction
	Conduct research on CIPAC recommendations 8-3 and 6-1	within 2 weeks via written Technical Direction
	Revise and/or update findings based on WACOR review	within 2 weeks via written Technical Direction
	Draft deliverable- guidance or other appropriate documents, tools, and etc	within 3 weeks via written Technical Direction
	Revise deliverable	within 2 weeks via written Technical Direction
	Final deliverable	within 2 weeks via written Technical Direction
Task 8: Decontamination Waiver Guide		
	Develop Waiver Guide/Document	within 2 weeks via written Technical Direction
	Revise Guide based on EPA's feedback	within 2 weeks via written Technical Direction
	Finalize Guide	within 2 weeks via written Technical Direction
Task 9: Decontamination Research of Contaminants		
	Conduct research of contaminants	within 2 weeks via written Technical Direction
	Conduct peer review	
	Update information WCIT	

Miscellaneous:
Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and §

1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

PRINTING

All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

Technical Direction

The Contract level COR or an authorized individual is permitted to provide technical direction. Technical direction must be within the statement of work of the contract and includes: (1) Direction to the contractor which assists the contractor in accomplishing the Statement of Work, (2) Comments on and approval of reports or other deliverables. Technical direction will be issued in writing or confirmed in writing within five (5) calendar days after verbal issuance. One copy of the technical direction memorandum will be forwarded to the Contracting Officer and the Contract Level Contracting Officer Representative.

TRAVEL

Travel is anticipated for this work assignment following appropriate approval by the work assignment WACOR. Any travel will be allowable only in accordance with the limitation of FAR31.205-43 and FAR 31.205-46, and must be approved by the appropriate EPA WACOR or alternate WACOR prior to travel taking place. WA 4-34 anticipated 10 separate trips within the EPA Regions, for Task #3. This work assignment also anticipates 2 trips to Georgia and Texas, for Task 4. Travel should be estimated for 2 contractor staff (facilitator and note taker). Travel will occur within the timeframes noted on the Deliverables table. Task 5 will include travel but only if and when written technical direction is provided for work under this task.

Quality Assurance Surveillance Plan

All task(s) identified in the performance work statement above are subject to review and approval by the WACOR based on the general guidelines of the contract quality assurance

surveillance plan regarding: Programmatic, cost control, schedule, and document development standards.

EPA

United States Environmental Protection Agency
Washington, DC 20460

Work Assignment

Work Assignment Number: 4-35

☐ Other ☐ Amendment Number:

Contract Number	Contract Period	Title of Work Assignment/SF Site Name
EP-C-15-022	09/01/2015 To 06/30/2020 Base Option Period Number 4	WCIT Analytical Preparedness

Contractor: Cadmus Group LLC, The

Specify Section and paragraph of Contract SOW: 2.2, 2.3, 2.4, 3.0, 3.4, 3.5, 3.6, 4.0, 7.0, 7.2

Purpose:
- [X] Work Assignment
- [ ] Work Assignment Amendment
- [ ] Work Plan Approval
- [ ] Work Assignment Close-Out
- [ ] Incremental Funding

Period of Performance: From 07/01/2019 To 06/30/2020

Comments:

☐ Superfund — Accounting and Appropriations Data — [X] Non-Superfund

SFO (*Max 2*): ☐

Note: To report additional accounting and appropriations date use EPA Form 1900-69A.

Line	DCN (Max 6)	Budget/FY (Max 4)	Appropriation Code (Max 6)	Budget Org/Code (Max 7)	Program Element (Max 9)	Object Class (Max 4)	Amount (Dollars)	(Cents)	Site/Project (Max 8)	Cost Org/Code
1										
2										
3										
4										
5										

Authorized Work Assignment Ceiling

	Cost/Fee:	LOE:
Contract Period: 09/01/2015 To 06/30/2020		0
This Action:		3,825
Total:		3,825

Work Plan / Cost Estimate Approvals

	Cost/Fee	LOE
Contractor WP Dated:		
Cumulative Approved:		

Work Assignment Manager Name: George Gardenier (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-3333 FAX Number:
Project Officer Name: Nancy Parrotta (Signature) (Date)	Branch/Mail Code: Phone Number: 202-564-5260 FAX Number:
Other Agency Official Name: (Signature) (Date)	Branch/Mail Code: Phone Number: FAX Number:
Contracting Official Name: Camille W. Davis (Signature) (Date)	Branch/Mail Code: Phone Number: 513-487-2095 FAX Number: 513-487-2115

PERFORMANCE WORK STATEMENT
Cadmus EP-C-15-022
Work Assignment No. 4-35

Title: Water Contaminant Information Tool (WCIT) and Water Laboratory Alliance (WLA)

Period of Performance: July 1, 2019 – June 30, 2020

Work Assignment Contracting Officer Representative (WACOR):
George Gardenier
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4608T)
Washington, DC 20460
202-564-3333
gardenier.george@epa.gov

Alternate WACOR:
Latisha Mapp
Office of Ground Water and Drinking Water (OGWDW)
1200 Pennsylvania Avenue, NW (MC: 4608T)
Washington, DC 20460
202-564-1390
mapp.latisha@epa.gov

LOE: 3825

PWS Sections: 2.2, 2.3, 2.4, 3.0, 3.4, 3.5, 3.6, 4.0, 7.0, 7.2

Quality Assurance:

Tasks 1, 3, and 4 in this work assignment do not require quality assurance (QA). Consistent with the Agency's QA requirements, the contractor does not need to supplement the Contract Quality Assurance Project Plan (QAPP) or to prepare a Project Specific Quality Assurance Project Plan (PQAPP) for these tasks.

Tasks 2, 5 and 6 in this work assignment require the use of primary and/or secondary data. Collection, use and analysis of data will be identical to the procedures described in the Supplemental Project Specific Quality Assurance Project Plan (SQAPP) completed for tasks 2, 5 and 6 of WA 2-35, consistent with the Agency's quality assurance (QA) requirements, appending the Contract Level Quality Assurance Project Plan (QAPP). The project specific quality assurance requirements must be addressed in the monthly progress reports as specified under Task 0, below.

Purpose:
The purpose of this work assignment is to support the implementation of the Water Laboratory Alliance (WLA), leading towards the sustainability of an alliance of laboratories to support drinking water response across a spectrum of activities including preparedness, response, remediation, and recovery.

To achieve this purpose, the contractor shall perform work under the tasks listed below.

Background:
This work is in response to Homeland Security Presidential Directive 9 (HSPD-9), which directed EPA to "build upon and expand current monitoring and surveillance programs to:

1. *Develop* ***robust, comprehensive, and fully coordinated surveillance and monitoring systems…for…water quality*** *that provide early detection and awareness of disease, pest or poisonous agents.*
2. *Develop* ***nationwide laboratory networks for…water quality*** *that integrate Federal and state laboratory resources, are interconnected, and utilize standardized diagnostic protocols and procedures."*

In response to the first task under HSPD 9, EPA proposed and initiated development of a Contaminant Warning System designated as the Water Security Initiative, now known as the Water Quality Surveillance and Response System (SRS) effort. To address the second major task under HSPD-9, EPA has established the Water Laboratory Alliance. The Water Laboratory Alliance is supported by the WLA-Response Plan which provides both the environmental laboratory and Water Sector with a national plan for analyzing a surge of drinking water and wastewater samples.

The intended audience for these efforts is the nation's drinking and wastewater utilities as well as the environmental laboratory sector, which performs analytical services to support them. Specifically, this work assignment is designed to conduct tasks that will support the information sharing, coordination and recovery from drinking water and wastewater contamination incidents. In addition, it supports the Water Sector being informed, coordinated, and prepared to prevent, detect, respond to, and recover from terrorist attacks and other hazards. Examples may include natural disasters, catastrophic events, impacts of climate change, floods, earthquakes, pandemic illness, and any other events which impact the safety and availability of our water supply.

The work under this Work Assignment supports programmatic needs related to our national all-hazards homeland security responsibilities by supporting the mission of the Water Security Division (WSD) as described in the Water Security Strategy framework, which relates resources, activities, outputs, audience, short- and long- term outcomes to the WSD pillars of Prevention, Detection, Response, and Recovery. Additionally, this work assignment contributes to the commitments made in EPA's *Strategic Plan: 2018 to 2022* and EPA's *Homeland Security Strategy (2004)*. Under EPA's *Strategic Plan*, reference is made to Goal 1 (Core Mission) Objective 1.2 (Provide for Clean and Safe Water), Subheading- Protect Human Health): **"Ensuring the security and preparedness of the nation's drinking water supplies by implementing EPA's national security responsibilities for the water sector"**. Under EPA's *Homeland Security Strategy*, reference is made to Objective 1 (Critical Infrastructure Protection).

Partners and external offices or agencies which should be included in coordination are listed below, along with a description of the nature of their involvement:

- Office of Land and Emergency Management (OLEM), the lead Organization for EPA's Environmental Response Laboratory Network (ERLN), of which the WLA is a component.
- Centers for Disease Control and Prevention (CDC), in order to leverage the CDC's Laboratory Response Network (LRN) infrastructure. The LRN is a system of State public health departments capable of responding quickly to an emergency event.
- Representatives for the Food Emergency Response Network (FERN) from the U.S. Department of Agriculture (USDA) and the Food and Drug Administration (FDA) where appropriate, to leverage infrastructure from additional existing laboratory networks to fill remaining gaps.
- Other stakeholders including state health laboratories, state drinking water and/or environmental laboratories, drinking water utility representatives, commercial laboratories, and other Federal

agencies, as appropriate, to discuss the proposed approach for the Water Laboratory Alliance and identify potential enhancements.

WSD has worked with other partners to develop a suite of products, including tools and resources in support of the WLA. One of these tools is the draft Analytical Preparedness Self-Assessment (APS) Toolbox. This toolbox is designed to compile the suite of tools and resources developed by the WLA and its Water Security partners to increase analytical preparedness. The APS will provide external stakeholders with a unified platform describing the critical need addressed by each tool or resource as well as a "big picture" view of analytical preparedness. The draft APS contains a series of questions for the user to answer in order to receive a customized checklist of actionable recommendations that can be used to improve analytical preparedness upon implementation. The draft tool will be provided to the contractor as part of this Work Assignment to aid the design and development of an easily accessible web-based tool.

The purpose of the Water Contaminant Information Tool (WCIT) is to assist the Agency and the Water Sector in planning for and responding to drinking water contamination threats and incidents. As a planning tool, WCIT can be used to support vulnerability assessments, emergency response plans, and the development of site-specific response guidelines. As a response tool, WCIT can provide real-time information about specific water contaminants to inform decision makers about appropriate response actions. A secondary objective of the WCIT effort will be to identify data gaps for priority contaminants, which will in turn identify future research needs.

To achieve these objectives, the contractor shall be expected to populate WCIT with additional contaminants; coordinate or integrate WCIT with related EPA tools and programs including providing WCIT data for use with those tools; develop outreach and training materials and conduct training. This project provides programmatic support related to our national all hazards homeland security responsibilities by decreasing the time required to find crucial contaminant information that will be needed during water contamination response incidents. WCIT is used for exercise planning to determine relevant symptoms and toxicity levels that will occur in the exercise scenario, and to determine what analytical methodologies and water treatment will be needed during the response.

Scope of Work

All direction under this work assignment will be provided as written technical direction from the WACOR or alternate WACOR. If provided first as verbal technical direction to the contractor, it will be confirmed in writing within 5 calendar days with a copy to the Contract-Level Contracting Officer's Representative (CL-COR) and the Contracting Officer (CO), and is subject to the limitations of the technical direction contract clause. Each initial deliverable shall be provided to the EPA WACOR and EPA CL-COR in draft form for review and comment. The contractor shall incorporate WACOR review comments into revisions of the drafts. All drafts and final reports shall be approved by the WACOR.

Under the WA 4-35, the WACOR will provide the contractor electronic copies of the tools and resources for the contractor to perform the following tasks:

Task Detail:

Task 0 – Work Plan Submission, Progress Evaluations and Monthly Reports

The contractor shall develop a work plan that describes how each task will be carried out. The work plan shall include a schedule, staffing plan, level of effort (LOE), and cost estimate for each task, the contractor's key assumptions on which staffing plan and budget are based, and qualifications of proposed staff. If a subcontractor(s) is proposed and subcontractors are outside

the local metropolitan area, the contractor shall include information on plans to manage work and contract costs.

In addition, the contractor shall prepare a statement indicating that this WA is a continuation of WA 2-35. The workplan shall explain that collection, use and analysis of data in this work assignment will be identical to the procedures described in the SQAPP completed for task(s) 2, 5 and 6 of WA 2-35.

This task also includes monthly progress and financial reports. The monthly progress report shall indicate, in a separate QA section, whether significant QA issues have been identified and how they are being resolved. Monthly financial reports must include a table with the invoice LOE and costs` broken out by the tasks in this WA. The contractor shall immediately notify the Project officer and WA manager if any changes to the tasks involving the collection and analysis of the data occur and prepare a new SQAPP supplementing the Contract Level Quality Assurance Project Plan (QAPP)] accordingly. Work on these tasks cannot proceed until the contractor receives notification of the new SQAPP approval from the PO via e-mail.

Deliverables: Work plan, monthly progress and financial reports.

Task 1 – Training for State Laboratories and Water Utilities

The contractor shall provide support to familiarize WLA member laboratories, WLA users, and Water Sector stakeholders, such as first responders and emergency managers with WLA response procedures, analytical methods, sample handling recommendations, data reporting, and supporting tools. In an effort to reach a wide and diverse WLA audience to the greatest extent possible, any training courses or tools developed shall be created using a web-based format to allow for maximum use and accessibility. Progress shall be measured by the number of individuals and organizations that access and receive notice of availability of the tools and training courses regarding the WLA. The training program shall ensure that WLA member laboratories and Water Sector stakeholders can take advantage of the benefits of the WLA, and operate effectively in the event of a water contamination incident involving a biological, chemical, or radiochemical contaminant. The contractor shall assist with the facilitation of webinars and in-person trainings covering the WLA preparedness tools and resources. Course format will vary depending on the topic and intended audience. Course topics fall into four categories:

- WLA Process
- Methods
- Sample Handling
- Supporting Tools

Anticipated Travel (Location TBD)

- August – (1 contractor personnel)
- October – (1 contractor personnel)
- January –(1 contractor personnel)
- April/May – (1 contractor personnel)

Selection and prioritization of trainings will be determined by the WLA team. Additional insight into the need for trainings and prioritization of topics will be gathered through discussions with the EPA Regions, WLA Liaisons, the Association of Public Health Laboratories' (APHL) Environmental Laboratory and Science committee, WSD Partners, and WLA Security Summit attendees.

Providing incentives for participation in trainings is a central component to eliciting participation in the WLA Training Program.

Specific activities required to meet this objective include:

A. **Support for the WLA Training Center's Webcast Series.** This may include any of several activities related to preparing and conducting webcasts, such as:
   - providing requested assistance in facilitating the webcasts
   - preparing post-webinar reports including a list of participants, compiled responses to polling questions, and webinar chat transcripts.

   Currently planned webcast topics include:
   i. **WLA Response Plan Tabletop Exercises** (up to 4 webcasts during the option year) based on the current scenarios, and potentially developing one new scenario involving a natural disaster or accidental chemical release.
   ii. **Continuity of Operations (COOP) Template Trainings** (up to 4 webcasts during the option year). This webinar is planned to be revised to make the format more interactive, and incorporate case studies.
   iii. **Sampling Guidance for Unknown Contaminants** (up to 4 webcasts during the option year)
   iv. **Accessing Laboratory Support Interactive Resource** (1 webcast during the option year)
   v. **Analytical Preparedness Full-Scale Exercise Toolkit** (up to 4 during the option period)

B. **Planning and facilitating in-person trainings** on WLA products or resources, as requested by EPA. The contractor shall assume that EPA will ask for assistance arranging logistics for and facilitating in-person trainings, but not for developing content for these trainings. For planning purposes, the contractor should assume up to 4 in-person trainings.

Task 2 – WCIT Data Population

Originally WCIT was conceptualized as a tool for utilities to use both for pre-planning, to understand the "landscape" of threats, and as a resource during emergency response to retrieve contaminant data. Because of this, the original contaminants in WCIT were selected from EPA's list of priority contaminants. As WCIT expanded, additional contaminants were selected for inclusion based on other factors. EPA will provide the contractor with a list of the contaminants expected to be included in the database in the future, and provide updates to this list as necessary. Information from already existing tools will be leveraged to avoid unnecessary research (e.g. Contaminant Candidate List (CCL), the Unregulated Contaminant Monitoring Rule (UCMR), NHSRC's Threat Ensemble Vulnerability Assessment (TEVA) modeling tool, and the contamination warning system simulation model being developed under WSD's Water Quality Surveillance and Response System (SRS) initiative. Based on written technical direction from the EPA WACOR, the contractor shall provide support of the data population effort. Examples include, but are not limited to:

- Updating the Data Population plan if requested by EPA
- Developing a Standard Operating Procedure for coordinating expert reviews of data to be added to the WCIT Database
- Providing information per the request of EPA WACOR for potential additional contaminants to add to WCIT
- Leveraging existing tools to support analysis of potential additional contaminants.
- Updating contaminant profiles with new information from recent journal articles and other technical publications. Some profiles have not been updated since 2005.

- Populating data in WCIT for contaminants identified by the EPA WACOR. For planning purposes, it may be assumed that up to 4 new contaminant profiles or full profiles expanded from "Lab Methods" profiles will be generated during the option year.
- Update data for previously populated contaminants, as outlined in the WCIT population plan. For planning purposes, it may be assumed that data may be updated for up to 10 contaminants, in 3-4 subject areas each. Such updates would include the facilitation of a peer or expert review group for these data updates.
- Facilitating expert workgroup reviews.
- Recommending new expert reviewers.
- Drafting invitations, agendas, review charges, reminders, letters of gratitude, and other materials in support of the expert workgroup reviews.
- Keeping updated spreadsheets of current and former WCIT expert reviewers, their contact information, expertise, and any additional information that is relevant.
- Providing logistical support for the workgroups and reviewers, consistent with contract requirements. Travel and appropriate compensation shall only be provided to those reviewers with consultant agreements verifying their input into the effort under the requirement. The contractor shall, in consultation with the EPA WACOR, develop a method to verify and track the reviewer submissions, and provide documentation to EPA confirming that payment was disbursed to the reviewers.
- Developing meeting or comment summaries, along with recommended actions and their associated cost and schedule implications. These summaries might follow a formal review, a meeting that the contractor attends, or other instances where users have provided feedback.
- Compiling, reviewing, and responding to comments by the expert workgroup.
- Updating WCIT data based on EPA's review of the expert workgroup comments and the contractors' response to comments.
- Revising the WCIT population plan or Data Population Quality Assurance Project Plan as needed.
- Inserting Provisional Advisory Level (PAL) information for up to 20 contaminants provided by the Office of Research and Development as directed by EPA WACOR.
- Ensuring consistency between the lab methods listed in WCIT and EPA's Selected Analytical Methods for Environmental Remediation and Recovery (SAM)

Deliverables:

- Updated Data population plan, if requested by EPA.
- Revised SOP for conducting expert reviews of data to be added to WCIT.
- Provide information requested by EPA for specific contaminants that may potentially be added to the WCIT.
- Populate WCIT with new contaminant profiles developed in accordance with the population plan after approval by EPA. For the purpose of developing the Work Plan, it may be assumed that two complete profiles for new contaminants and two expansions of "Lab Methods" profiles (a total of up to 4 new WCIT profiles) will be added to the WCIT database during the option period.
- Update contaminant profiles for contaminants selected by the WACOR. For the purpose of developing the Work Plan, it may be assumed that updates up to 10 profiles will be made in 3 – 4 subject areas each.
- Deliver meeting minutes and response to comments for expert reviews, as needed.
- WCIT Population Plan or Data Population QAPP as needed.

Task 3 – Integration of WCIT with other EPA or Water Sector Partner Tools, Development of Data Consistency, and Data Requests

The purpose of integrating WCIT with other EPA tools is two-fold. Leveraging existing data systems managed by EPA is an efficient use of EPA resources. In addition, integrating WCIT with other sources ensures that the data across EPA tools is consistent. The extent and method of integration with each tool will be determined on a case-by-case basis.

The information for some data used in WCIT is, or will be, available from databases developed and housed outside of the Water Security Division (WSD). The measurement of success will be the number of WCIT profiles that reflect the final study reports published by NHSRC. Most of these publications appear to be relevant to wastewater and infrastructure decontamination. The following are some potential examples:

- The environmental methods for contaminants of security concern can be obtained from the National Environmental Methods Index (NEMI) database.
- Laboratory resources can be obtained from the Laboratory Compendium,
- Treatment methods are listed in the Treatability Database under development by EPA's Office of Research and Development (ORD),
- Toxicity information may from the prototype Emergency Consequence Assessment Tool (ECAT) under development by ORD,
- Chemical warfare agent (CWA) data are compiled in ORD's Chemical-Biological Helpline (CB-Helpline)
- National Homeland Security Research Center (NHSRC) Contaminant Data Dictionary,
- Technology data developed by ORD's Technology Testing and Evaluation Program (TTEP).
- WCIT may also be integrated into the National Decontamination Portfolios under development by the Office of Land and Emergency Management (OLEM) and
- The OSC toolbox.

Besides relying upon other EPA tools for certain data, WCIT also provides support for several EPA water security initiatives. Examples include the WSD's emergency response training and EPA's contamination monitoring work in support of Homeland Security Presidential Directive-9. In addition, several of the other EPA tools require information from WCIT.

The contractor, per EPA WACOR written technical directions, shall work with WSD personnel to promote WCIT and other WSD web sites and tools. The contractor shall identify what parts of WCIT could reference and have linkages to other WSD tools (e.g., URL links), as well as suggesting how other tools may be able to link to WCIT.

Under this task, and per EPA WACOR written technical direction, the contractor's duties shall include, but are not limited to:

- Review existing EPA tools and assess their potential for integration with WCIT. Examples may include the Compendium of Environmental Testing Laboratories (Laboratory Compendium), Water Quality Treatability Database, Route to Resilience, or NHSRC's Environmental Sampling and Analytical Methods (ESAM).
- Provide written documentation describing options and recommendations for tool integration.
- Determine where URL links could be inserted into WCIT to promote other WSD web tools.

Deliverables:

- A detailed evaluation on the various EPA tools designed to address the contaminants of concern for water security. Some items to be addressed would be the need to identify the uses of these

tools, audience for the tools, and overlap in efforts between databases.

- Outlined options and recommendations for integration of WCIT with other EPA tools. This will be worked on after the detailed evaluation has been compiled on the databases such that the data fields and audience have been identified for each of the databases.
- Recommendations to integrate and support data consistency with other EPA water security tools.
- Provide requested WCIT data to other EPA water security tools as requested by the EPA WACOR.

Task 4 – WCIT Outreach, Communication, and Training Support

In order for WCIT to be a useful tool, its intended audience must be aware of its availability, its value and benefits, and must understand how to use it. The purpose of this task is to provide outreach, communication, and training support for WCIT. The measurement of success for this task will be to deliver at least 10 hands on trainings to our target audiences. These will be conducted by conference call, and the participants will follow the trainer while logged into WCIT.

If requested by the EPA WACOR, the contractor shall implement up to 2 voluntary WCIT exercises during the option year. During these voluntary exercises (administered by email), each WCIT registrant will receive a mock drinking water contamination scenario, with a list of technical questions that can be answered by using WCIT.

The eligible users of WCIT may be updated to include state and/or local emergency responders. Upon expansion of the potential users for WCIT, the contractor shall support additional and targeted outreach to the potential new community of WCIT users.

The EPA WACOR may task the contractor to carry out the following activities, or others in support of these tasks that support the general scope of this work assignment:

- Develop articles, fact sheets, press releases, newsletters, trifolds, presentations, and other outreach materials.
- Develop training and training evaluation materials.
- Provide support for WCIT training, including webcasts.
- Conduct and/or facilitate training and/or webcasts. This could be independent training or it could be associated with another course, meeting or conference.
- Identify relevant existing courses and conferences to which WCIT could be added, and coordinate the addition of WCIT. These courses may be conducted by EPA or by any of the WCIT audience members.
- Coordinate with other training coordinators to incorporate WCIT into their training. This includes soliciting feedback on WCIT from course participants.
- Revise the existing WCIT communication strategy as appropriate. Update the outreach and communication plan, so that it covers a two-year time frame as often abstracts are requested six or more months in advance of a meeting or workshop.
- Update the WCIT Training PowerPoint presentation so that it may be presented at live training that can be presented at national, regional or local meetings to train utility, laboratory, or emergency response personnel on the uses of WCIT. The training would introduce users to the function of WCIT, how to use WCIT during a possible contamination incident, and how to use WCIT for planning purposes. The presentation should include notes and scripts so that it can be presented by EPA, the contractor, or other personnel in a variety of settings. This training could be incorporated into the WLA training center, or a similar location.

- Update the web-based training that would be available through the EPA website. This web-based training will provide WCIT training, freely available to a broad audience as their schedules permit.

The most likely deliverables from these activities are the following:

Deliverables:

- Announcements of planned WCIT Exercises sent to each WCIT registrant. If conducted, these exercises will likely be conducted via email, containing a scenario and related questions that can be answered using the information in WCIT.
- Electronic newsletters to current WCIT users and those on the e-mail distribution list for WCIT updates if requested by EPA.
- Updated WCIT Fact Sheet as appropriate with discussion of recent tool enhancements and data additions per EPA WACOR direction.
- A WCIT technical paper for submission to a technical journal, with an approximate length of ten double-spaced pages in Microsoft Word.
- Coordination with other trainings to incorporate WCIT as appropriate.
- Presentation materials for meetings and briefings to be attended by EPA, the contractor, and others presenting on WCIT. The audience for each meeting or briefing will be identified by technical direction. Updates to WCIT can occur, which will require modifications to the standard presentation available for WCIT. Assume 5 presentations will be required, but that each presentation will only be a revision of the current presentations being used.
- Updated WCIT outreach and communication plan for FY19.
- Updated meeting-based PowerPoint presentation to reflect the most recent modifications to WCIT.
- Updated web-based WCIT training. All online training will be scorm compliant and will be developed using software that can easily be migrated to the EPA's Learning Management System.

Task 5 – Maintenance, Registration and Enhancements to the WCIT Database

The contractor shall maintain the WCIT database for all registered users, including any additional users who were a part of National Environmental Methods Index (NEMI) and who must now be transferred to WCIT. The measurement for success of this task is the continuous running of WCIT, timely registrations for 90% of requests received, and 95% resolution of any problems identified (e.g., invalid links). The contractor shall also make system modifications as directed by the EPA WACOR that are necessary to allow for better accessibility of the database. Maintenance and modifications to the database will be an ongoing task and are necessary to keep the WCIT database easily accessible and to address any concerns that users may have when using the database. In addition, EPA is required to update the WCIT security plan and populate and maintain the Automated System Security Evaluation and Remediation Tracking (ASSERT) database under the Federal Information Security Management Act (FISMA) as well as to update the OW Registry of EPA Applications and Databases (READ). The contractor shall assist the EPA WACOR as directed to address findings identified during EPA's WCIT IT Security Assessments. These tasks shall be completed as part of the maintenance of the WCIT database. The contractor must be available for handling the registration and processing of user applications as outlined in the WCIT access protocol and to respond to technical difficulties, including comments sent to the WCIT feedback mailbox (hosted at EPA). EPA's protocol for user approval may need revision as directed by the EPA WACOR, which may require making appropriate changes to the interface to accommodate these changes. The

contractor shall respond directly to user questions and technical difficulties as needed, and must copy the WACOR on all correspondence. The monthly progress report shall summarize these support activities.

The following are all possible initiatives for this work assignment. Implementation of tasks shall be in accordance with technical direction and consistent with Program priorities.

- If directed by the EPA WACOR, the WCIT eligible user identity may be updated to include state and/or local emergency responders. Upon expansion of the potential users for WCIT, the contractor shall continue registration protocols as defined by the WCIT access protocol.
- The contractor shall update invalid links when identified. Most of invalid links are usually related to external websites, and some are related to typographical errors in entering Web addresses.
- An update of the sampling and analysis tables in WCIT is needed as part of the maintenance. The analytical methods are critical to detection as well as measurement of treatment and decontamination effectiveness. Accurate information is critical for WCIT users to appropriately plan for or respond to a contamination event.
- Updates of the Fate and Transport and Infrastructure Decontamination tables in WCIT are needed to best facilitate the implementation of a decontamination strategy. WCIT shall be updated to include fate and transport information of chemical, biological and radiological agents, residuals, and decontamination agents in the environment and in chlorinated drinking water and wastewater systems. Current WCIT contaminant information containing expert judgments on fate and transport shall also be updated with empirical data, where available.
- The contractor also shall update WCIT to disseminate near-term practical decontamination solutions to utilities as part of the implementation of the decontamination strategy. This will be accomplished by updating WCIT to provide information on using traditional techniques (i.e., those in routine use by utilities) for non-traditional contaminants, and to provide information on the efficacy of pipe cleaning aids, such as NSF-60-certified products, on the decontamination of infrastructure.
- The contractor shall determine if there are WCIT users that are no longer eligible for WCIT membership. Some users may have moved to a new employer or retired, and may not work for an organization that is allowed access to WCIT. All or a subset of WCIT users shall be emailed at their place of employment to determine whether they are still employed there. Several rounds of follow up communication may be required, and the responses shall be tracked on a spreadsheet.
- Specific activities under this task will be assigned through written technical direction in response to Water Security Division support needs, and shall be within the general scope of this work assignment.
- No new IT development will be done under this work assignment.

<u>Deliverables (as requested by EPA)</u>:
Maintenance:

- Maintenance of the WCIT database for the more than 3,400 registered users. Any potential system modifications will be coordinated with the EPA WACOR.
- Identifying and updating invalid links in the WCIT database.
- Providing requested scientific or technical expertise or logistical support as requested by EPA.

Registration:

- Registration of new WCIT users as defined in the WCIT access protocol; focus on expanding membership among scientific staff at the 400 largest utilities, state responders, and EPA Water Teams.

Enhancements to the Database:

- Assistance implementing required security protocols and access protocols.
- Updated WCIT security plan; ASSERT database, OW READ, and other IT system applications

that are required by the OW and/or EPA. Timing of the updates to the IT applications will be established by each application.

Task 6 – Quality Assurance Review of the WCIT Database
The contractor shall review the profiles in WCIT for completeness, accuracy and consistency with referenced source material. Of the 810+ contaminant profiles currently in WCIT, ~111 are full profiles, with multiple categories of information. The remainder contain only identification information and available laboratory methods. Since WCIT was launched in 2005, the available laboratory methods for the included contaminants may have changed. During this review, the contractor shall also update the available laboratory methods for the profiles.

Special Reporting:
The Contractor shall submit a Monthly Progress Report detailing activities undertaken and completed each month with an indication of upcoming tasks to be performed and anticipated problem areas.

Meetings, Conferences, Training Events, Award Ceremonies and Receptions:

The contractor shall immediately alert the WACOR to any anticipated event under the work assignment which may result in incurring an estimated $20,000 or more cost, funded by EPA, specific to that event, meeting, training, etc. Those costs would include travel of both prime and consultant personnel, planning and facilitation costs (including all outlaying preparation cost), AV and rental of venue costs, etc. The EPA WACOR will then prepare for the approval of the internal paperwork for the event and will advise the Contracting Officer (CO) when appropriate signatures have been obtained. The CO will notify the contractor. At that point, effort can proceed for the event. If the event is being sponsored by another EPA organization, the organization providing the planning is responsible for the approval.

Travel

The contractor shall anticipate up to four (4) contractor trips in support of this WA over the duration of the performance period. Travel will be directly related to the scope of this Work Assignment and support advancement of the work under Tasks 4 and 8, as well as the EPA's Mission to protect human health and the environment.

Schedule of Deliverables:

TASK No.	DELIVERABLE	DATE DUE TO EPA
Task 0: Workplan Submission		
	Workplan, budget, and QA supplemental (APS)	According to contract.
	PQAPPs for Tasks 2, 5, and 6	According to contract.
	Monthly progress reports	Monthly
Task 1: Training and Tool Development for State Laboratories and Water Utilities		
Task 1A: Training Center Webcast Series		
	Post-webinar report outlining metrics, participants, polling question responses and chat transcripts for WLA webcasts	1 week after each webinar
Task 1B: In-person trainings for WLA tools and resources		

	New WLA-RP TTX Presentation including at least one new scenario (natural disaster or accidental chemical release)	June 30, 2020
Task 2: WCIT Data Population		
	Updated Data Population Plan for WCIT	Within 30 days of technical direction, if requested by EPA
	Documented procedure for expert or peer review of content to be added to the WCIT database (edits to existing profiles, addition of new profiles)	Within 30 days of Technical Direction, if requested by EPA
	Data for population of the WCIT database (new profiles, edits to existing profiles, or completion of partial profiles)	TBD
	Initial Draft of contaminant profiles or updated contaminant data	According to TD, no later than 60 days after technical direction
	Response-to-comments document	According to TD, no later than 30 days after receipt of reviewer comments
	Revised response-to-comments document	According to TD, no later than 30 days after receipt of EPA revisions.
	Materials such as invitations, agendas, review charges, thank you letters or other materials in support of expert/peer review	According to TD, no later than 30 days after technical direction
	Updated list of expert/peer reviewers	Ongoing
	Meeting or content summaries following meetings with users or reviewers	1 week after each meeting.
	Response to comments reports following receipt of feedback from reviewers or work groups	2 weeks after each meeting.
	Incorporation of PALs information provided by ORD	If requested by EPA, NLT June 30, 2020
Task 3: Integration of WCIT with other EPA or Water Sector Partner Tools, Data Consistency, and Data Requests		
	Evaluation of Water Security Tools for Integration with WCIT	If requested by EPA, NLT September 30, 2019
	Recommendations for integration of WCIT with other Water Security Tools or databases.	If requested by EPA, NLT December 31, 2019
	Coordination with the developers of new and existing tools to discuss potential integrations with WCIT.	If requested by EPA, NLT March 31, 3019
	Updated documentation	If requested by EPA, NLT June 30, 3019
Task 4: Outreach, Communication and Training Support		
	Outreach materials including fact sheets, articles, press releases	According to TD, no later than 30 days after technical direction
	Updated WCIT Training Presentations for training webcasts and conference calls.	According to TD, no later than 30 days after technical direction

	Summary report containing participant information, polling question responses and chat transcripts from up to 12 WCIT trainings, if requested.	1 week after each training.
	Abstracts and Presentations for conferences or professional meetings.	According to TD, no later than 30 days after technical direction
	Draft technical paper for publication	If requested by EPA, NLT June 30, 2020
	Revised WCIT communication strategy.	If requested by EPA, NLT June 30, 2020
Task 5: Maintenance, Registration and Enhancements to the Database		
Maintenance of the WCIT database and website		
	Identified and updated invalid links in the WCIT database	Twice during the performance period: December 31, 2019 and June 30, 2020
	Scientific and technical expertise or logistical support	TBD
Registration		
	Processed registration requests and inquiries	Throughout the option period as such requests occur
Enhancements to the WCIT Database		
	Assistance implementing required security protocols	As necessary throughout the option period
	Minor updates to the tool or bug fixes that don't entail new IT development, in order to meet Agency requirements as needed	Within schedules established by Technical direction from EPA.
	Revisions to WCIT Access Protocol, if requested	To be Determined (TBD)
Task 6: Quality Assurance Review of the WCIT Database		
	Plan/Schedule for review of existing WCIT Profiles,	October 31, 2019
	List of suggested revisions for WCIT profiles	As specified in the plan/schedule; NLT June 30, 2020
	Revised/updated profiles posted to WCIT	As directed by EPA WACOR; NLT June 30, 2020.
Task 7: Training and Tool Development for State Laboratories and Water Utilities		
Task 7A: Training Center Webcast Series		
	Post-webinar report outlining metrics, participants, polling question responses and chat transcripts for WLA webcasts	1 week after each webinar
Task 7B: In-person trainings for WLA tools and resources		
	New WLA-RP TTX Presentation including at least one new scenario (natural disaster or accidental chemical release)	June 30, 2020

Miscellaneous:
Software Application Files and Accessibility

Software Application files, if delivered to the Government, shall conform to the requirements relating to accessibility as detailed to the 1998 amendments to the Rehabilitation Act, particularly, but not limited to, § 1194.21 Software applications and operating systems and § 1194.22 Web-based intranet and internet information and applications. See: http://www.section508.gov/

Preferred text format:	MS Word, 8.0 or higher (Office 2003 or higher)
Preferred presentation format:	Power Point, Office 2003 or higher
Preferred graphics format:	Each graphic is an individual GIF file
Preferred portable format:	Adobe Acrobat, version 6.0

CONTRACTOR IDENTIFICATION
Contractor personnel shall always identify themselves as contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative. The contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the CO, CL-COR and/or WACOR.

PRINTING
All copying and printing shall be accomplished within the limitations of the printing clause of the contract.

Quality Assurance Surveillance Plan
All task(s) identified in the performance work statement above are subject to review and approval by the EPA WACOR based on the general guidelines of the contract quality assurance surveillance plan regarding: Programmatic, cost control, schedule, and document development.